

AL/OE-CR-1994-0004



**PATRICK AIR FORCE BASE
STORM WATER POLLUTION PREVENTION PLAN**

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13. ABSTRACT (Maximum 200 words) This report fulfills the requirements of the EPA General Permit for storm water discharge that facilities requiring NPDES storm water permits prepare a Storm Water Pollution Prevention Plan (SWPPP). Facilities requiring permits are those classified as industrial under one of eleven categories as defined in 40 CFR 122.26(b)(14)(i)-(xi). EPA has ruled that military bases are subject to storm water regulations based on secondary activities such as hazardous waste storage (category iv), Installation Restoration Program (IRP) sites (category v), aircraft maintenance/refueling (category viii), and waste water treatment (category ix). The relevant activities at Patrick AFB that make the base industrial under the NPDES program are the hazardous waste storage facility, aircraft maintenance/refueling activities, and two waste water treatment plants. The purpose of the SWPPP is to 1) identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharge associated with industrial activity from the facility; 2) Implement best management practices (BMPs) to minimize storm water pollution; and 3) assure compliance with all terms and conditions of the Permit.				
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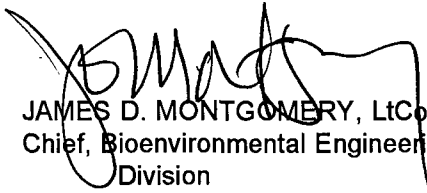
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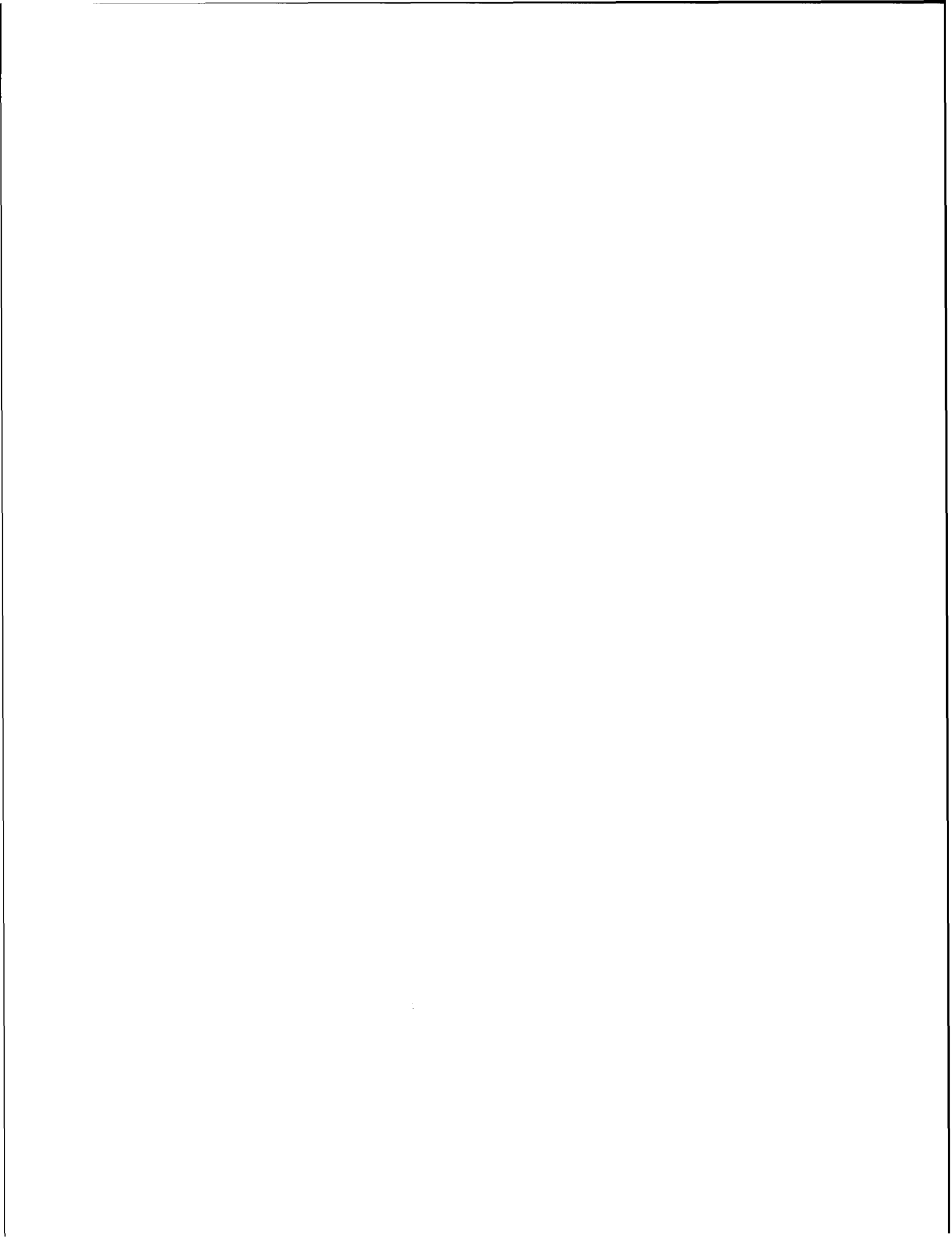
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PATRICK AIR FORCE BASE

STORM WATER POLLUTION PREVENTION PLAN

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CONTENTS

	<u>Page</u>
TITLE PAGE	
CERTIFICATION	
LIST OF FIGURES	
LIST OF EXHIBITS	
1. INTRODUCTION	1-1
1.1 Background - Storm Water Permit Requirements	1-1
1.2 Application of Storm Water Requirements to Patrick AFB	1-2
1.3 SWPPP Organization	1-3
2. PLANNING AND ORGANIZATION	2-1
2.1 Pollution Prevention Team	2-1
2.2 Related Operations Management Plans	2-1
2.3 Training Plans	2-3
3. ASSESSMENT OF INDUSTRIAL FACILITIES AT PATRICK AFB	3-1
3.1 Permitted Hazardous Waste Storage Facility	3-1
3.1.1 Description of Potential Pollutant Sources	3-1
3.1.1.1 Drainage	3-1
3.1.1.2 Inventory of Exposed Materials	3-1
3.1.1.3 Spills and Leaks	3-2
3.1.1.4 Storm Water Sampling Data	3-2
3.1.1.5 Risk Identification and Summary of Potential Pollutant Sources	3-2
3.1.2 Measures and Controls	3-4
3.1.2.1 Good Housekeeping	3-4
3.1.2.2 Preventive Maintenance	3-5
3.1.2.3 Spill Prevention and Response Procedures	3-5
3.1.2.4 Inspections	3-6
3.1.2.5 Employee Training	3-7
3.1.2.6 Sediment and Erosion Control	3-8
3.1.2.7 Management of Runoff	3-8
3.1.2.8 Management Controls Implementation	3-9

CONTENTS (Cont.)

	<u>Page</u>
3.1.3 Non-storm Water Discharges	3-9
3.1.4 Additional Requirements	3-10
3.2 Flight Line and Maintenance Hangar Areas	3-10
3.2.1 Description of Potential Pollutant Sources	3-10
3.2.1.1 Drainage	3-11
3.2.1.2 Inventory of Exposed Materials	3-11
3.2.1.3 Spills and Leaks	3-11
3.2.1.4 Storm Water Sampling Data	3-12
3.2.1.5 Risk Identification and Summary of Potential Pollutant Sources	3-12
3.2.2 Measures and Controls	3-13
3.2.2.1 Good Housekeeping	3-13
3.2.2.2 Preventive Maintenance	3-14
3.2.2.3 Spill Prevention and Response Procedures	3-14
3.2.2.4 Inspections	3-15
3.2.2.5 Employee Training	3-15
3.2.2.6 Sediment and Erosion Control	3-17
3.2.2.7 Management of Runoff	3-17
3.2.2.8 Management Controls Implementation	3-18
3.2.3 Non-storm Water Discharges	3-18
3.2.4 Additional Requirements	3-19
3.3 North and South Wastewater Treatment Plants	3-19
3.3.1 Description of Potential Pollutant Sources	3-19
3.3.1.1 Drainage	3-20
3.3.1.2 Inventory of Exposed Materials	3-20
3.3.1.3 Spills and Leaks	3-20
3.3.1.4 Storm Water Sampling Data	3-21
3.3.1.5 Risk Identification and Summary of Potential Pollutant Sources	3-21
3.3.2 Measures and Controls	3-22
3.3.2.1 Good Housekeeping	3-22

CONTENTS (Cont.)

	<u>Page</u>
3.3.2.2 Preventive Maintenance	3-23
3.3.2.3 Spill Prevention and Response Procedures	3-23
3.3.2.4 Inspections	3-24
3.3.2.5 Employee Training	3-24
3.3.2.6 Sediment and Erosion Control	3-26
3.3.2.7 Management of Runoff	3-26
3.3.2.8 Management Controls Implementation	3-27
3.3.3 Non-storm Water Discharges	3-27
3.3.4 Additional Requirements	3-28
4. EVALUATION	4-1
4.1 Comprehensive Site Compliance Evaluation	4-1
4.2 Recordkeeping and Internal Reporting Procedures	4-2
4.3 SWPPP Revisions	4-2
REFERENCES	
APPENDIX A: EPA GENERAL PERMIT	
APPENDIX B: RECORD OF SPILLS AND LEAKS	
APPENDIX C: STORM WATER SAMPLING DATA	
APPENDIX D: COMPREHENSIVE COMPLIANCE EVALUATION	
APPENDIX E: RECORD OF INSPECTIONS AND PREVENTIVE MAINTENANCE	



LIST OF FIGURES

<u>Number</u>	<u>Title</u>
1-1	Site location map
3-1	Facility map - Hazardous Waste Storage Facility
3-2a	Facility map - Flight Line/Maintenance Hangar Areas and North Wastewater Treatment Plant
3-2b	Facility map - Department of State Flight Line and Maintenance Hangar Area.
3-3	Facility map - South Wastewater Treatment Plant



LIST OF EXHIBITS

<u>Number</u>	<u>Title</u>
2-1	Pollution Prevention Team Member Roster
Hazardous Waste Storage Facility	
3-1-1	Description of Exposed Significant Material
3-1-2	List of Significant Spills and Leaks
3-1-3	Storm Water Sampling Data
3-1-4	Pollutant Source Identification
3-1-5	Record of Inspections
3-1-6	Employee Training
3-1-7	BMP Identification
3-1-8	BMP Implementation Schedule
3-1-9	Non-Storm Water Discharge Assessment and Certification
3-1-10	Non-Storm Water Discharge Assessment and Failure to Certify Notification
Flight Line and Maintenance Hangar Areas	
3-2-1	Description of Exposed Significant Material
3-2-2	List of Significant Spills and Leaks
3-2-3	Storm Water Sampling Data
3-2-4	Pollutant Source Identification
3-2-5	Record of Inspections
3-2-6	Employee Training
3-2-7	BMP Identification
3-2-8	BMP Implementation Schedule
3-2-9	Non-Storm Water Discharge Assessment and Certification
3-2-10	Non-Storm Water Discharge Assessment and Failure to Certify Notification
North and South Wastewater Treatment Plants	
3-3-1	Description of Exposed Significant Material
3-3-2	List of Significant Spills and Leaks
3-3-3	Storm Water Sampling Data
3-3-4	Pollutant Source Identification
3-3-5	Record of Inspections
3-3-6	Employee Training
3-3-7	BMP Identification
3-3-8	BMP Implementation Schedule
3-3-9	Non-Storm Water Discharge Assessment and Certification
3-3-10	Storm Water Discharge Assessment and Failure to Certify Notification
4-1	Comprehensive Site Compliance Evaluation Checklist



1. INTRODUCTION

The Storm Water Pollution Prevention Plan (SWPPP) for Patrick Air Force Base (AFB) has been prepared in response to requirements of the EPA General Permit for Industrial Storm Water Discharges promulgated in 57 FR 41307, 9 September 1992. Dischargers subject to the EPA General Permit are required to prepare and implement a SWPPP. There are three objectives of the SWPPP: (1) identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility; (2) implement best management practices (BMPs) to minimize storm water pollution; and (3) assure compliance with all terms and conditions of the Permit.

This SWPPP provides pertinent information regarding which activities and areas are subject to regulatory requirements and the actions that must be taken to ensure that pollution from storm water discharges emanating from these areas is minimized. Only those areas where industrial activity takes place are covered by the EPA General Permit, and consequently, only industrial areas are included in the SWPPP. Organizational responsibilities for different elements of the SWPPP are also contained in this document so that the lines of responsibility and communication that are necessary for SWPPP execution are clearly established. Lastly, this document is to be retained on-site and must be made available to the Florida Department of Environmental Protection or EPA Region IV on request. The SWPPP is also to be made available to the public under Section 308(b) of the Clean Water Act. Public availability can be satisfied either by allowing on-site viewing or copying at the requestor's expense.

1.1 BACKGROUND - STORM WATER PERMIT REQUIREMENTS

Section 402(p) of the 1987 Amendments to the Clean Water Act establishes the framework for regulation of industrial storm water discharges under the NPDES permit program. Final NPDES storm water regulations were promulgated in the 16 November 1990 Federal Register (55 FR 48062-48091) and are contained in 40 CFR parts 122, 123, and 124. These regulations require that operators of industrial facilities that discharge storm water from point sources to the waters of the United States apply for a permit. To be subject to the storm water permit regulations, an industrial facility must fall within one of 11 categories specified in 40 CFR 122.26(b)(14)(i)-(xi). Five of these categories are defined relative to Standard Industrial Classification (SIC) codes and the six remaining categories are defined descriptively. If no activities at a facility fall into one of the 11 categories, a storm water permit is not required.

Commercial industrial facilities are placed in the 11 categories based on the primary activity at the site. Under this approach, military bases, whose SIC code is 9711 (national security), would be exempt from the regulations, because 9711 does not fall in any of the five SIC-defined categories, and the primary activity (i.e. national security) does not fit the definitions in the six descriptive categories. However, U.S. EPA has ruled that military bases are subject to the storm water regulations based on secondary activities such as hazardous waste storage (category iv), IRP sites (category v - land disposal of waste), aircraft maintenance/refueling (category viii - transportation), and wastewater treatment (category ix).

The Air Force submitted a group permit application on behalf of 130 facilities, including Patrick AFB. The final portion of the application went to EPA on 1 September 1993. To date, U.S. EPA has not issued the Group Permit, which means (1) there is not an existing requirement for a SWPPP, and (2) there is no definitive guidance on what the SWPPP should contain if and when a SWPPP is required.

Where storm water permits have been issued, either by states or EPA Regions, SWPPPs have generally been required. For this reason, Air Force Space Command has directed that SWPPPs be prepared. This SWPPP follows the guidance in the EPA General Permit because it is expected that the final guidance in the Group Permit, when it is eventually issued, will closely resemble the EPA General Permit.

1.2 APPLICATION OF STORM WATER REQUIREMENTS TO PATRICK AFB

Patrick AFB is located along the east coast of Florida midway between the cities of Satellite Beach and Cocoa Beach. It is bordered by water on two sides, with the Banana River to the west and the Atlantic Ocean to the east (Figure 1-1) and encompasses approximately 1,850 acres (2.89 mi²).

The primary mission of the 45th Space Wing headquartered at Patrick AFB is to "conduct space launch and range operations for the commander of Air Force Space Command and provide support for DoD, NASA, and commercial manned and unmanned space programs" (Office of Public Affairs, 45th Space Wing 1992). A majority of the activities carried out at Patrick AFB are related to the operation and maintenance of an air field to provide support to Space Research and Technology operations.

Activities at Patrick AFB were screened relative to the 11 industrial categories in the storm water regulations [40 CFR 122.26(b)(14)]. Three separate activities were found to fall under

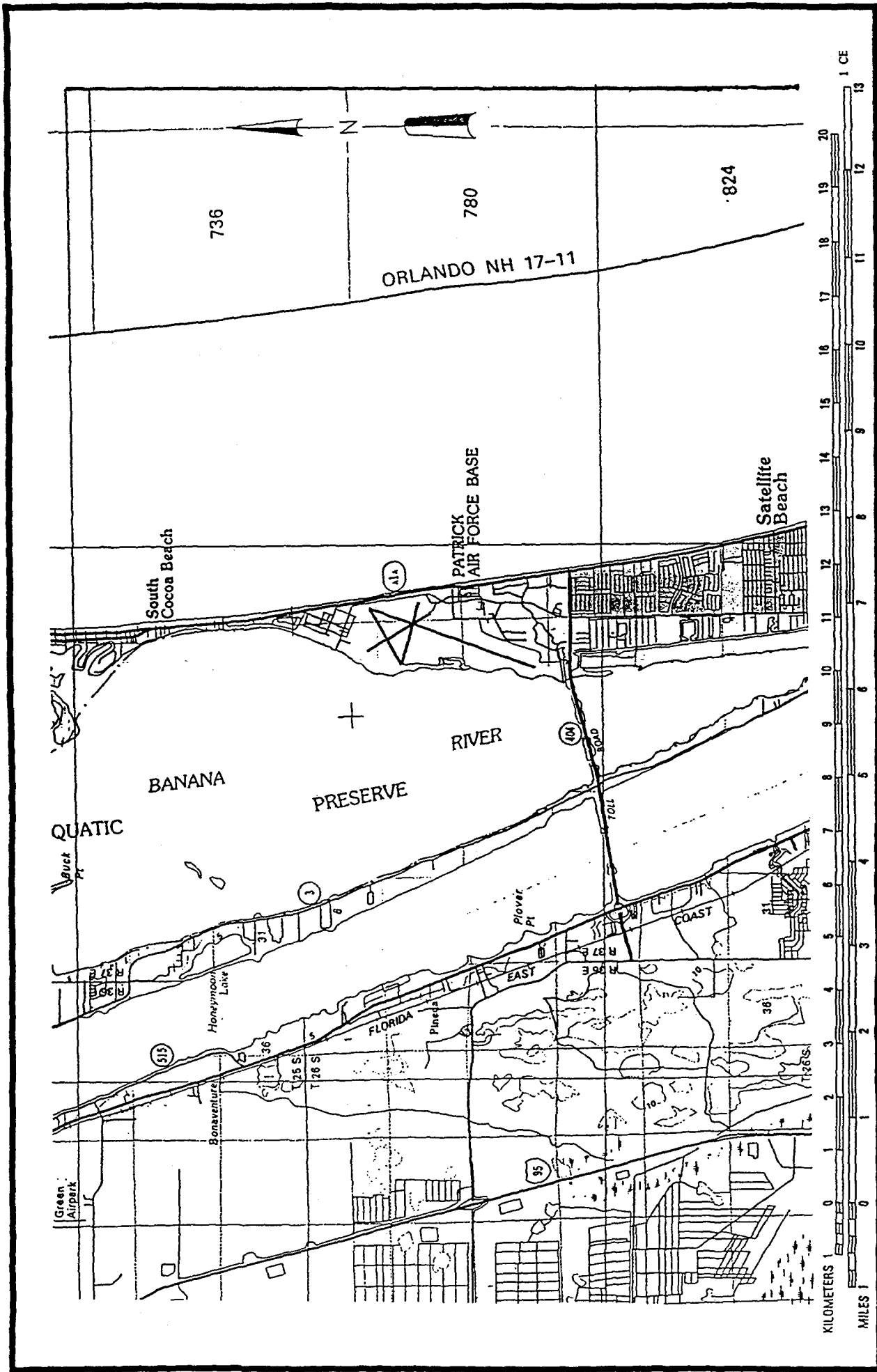


Figure 1-1. Site location map of Patrick AFB. USGS 30 min x 60 min quadrangle, 1981.



one of the 11 categories, subjecting them to the storm water regulations. These industrial activities include:

- Hazardous Waste Storage Facility (Building 958S) - This facility falls under category (iv) - Hazardous Waste Treatment, Storage, or Disposal because it is a RCRA permitted facility.
- Flight Line and Maintenance Hangar Areas - These areas fall under category (viii) - Transportation. They are considered industrial with an SIC code of 4581 which reads "establishments primarily engaged in operating and maintaining airports and flying fields; in servicing, repairing, maintaining, and storing aircraft; and in furnishing coordinated handling services for airfreight or passengers at airports" (OMB 1987). In addition to the apron and hangar areas, the POL storage facilities are also in these areas and are considered in this category.
- North and South Wastewater Treatment Plants - These facilities fall under category (ix) - Sewage Treatment. To be considered industrial under this category, the plant must have a design capacity of at least one million gallons per day. Both the North and South Wastewater Treatment Plants meet this criteria.

1.3 SWPPP ORGANIZATION

This SWPPP is an information and implementation document which is organized to ensure that the requirements in Part IV.D of the EPA General Permit are addressed. This document also incorporates guidance provided in "Storm Water Management For Industrial Activities, Developing Pollution Prevention Plans and Best Management Practices" (EPA 832-R-92-006).

Chapter 2 identifies the members of the storm water Pollution Prevention Team who are responsible for the implementation, maintenance, and revision of the SWPPP. Related operations and training plans are identified and discussed.

Chapter 3 is a description of the potential pollutant sources, which includes a site map showing the locations of potential pollutant sources, structural storm water pollution control measures, storm water outfalls, and the drainage boundaries of the outfalls; an inventory of exposed materials; a record of significant spills and leaks that have occurred since 1 October 1989; and a summary of any existing discharge sampling data describing pollutants in storm water. This information on potential pollutant sources will be used to target the most

important sources for corrective and/or preventive action. Chapter 3 also contains storm water management controls and BMPs appropriate for the facility, including a schedule for implementing such controls.

Chapter 4 discusses the required Comprehensive Site Compliance Evaluation and includes an evaluation checklist to verify the accuracy and the implementation of the SWPPP. Chapter 4 also contains the recordkeeping requirements and the procedures to follow in making revisions to the SWPPP.

There are a series of five tabs at the end of the SWPPP. The first tab contains the EPA General Permit. The second through fifth tabs are set aside for storing a record of spills and leaks, storm water sampling data, results of the Comprehensive Compliance Evaluation, and a record of inspections and observations.

2. PLANNING AND ORGANIZATION

2.1 POLLUTION PREVENTION TEAM

The Permit requires that the SWPPP identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team who are responsible for assisting in the implementation, maintenance, and revision of the SWPPP (Part IV.D.1). The members of the storm water Pollution Prevention Team are presented in Exhibit 2-1. Membership of the Pollution Prevention Team must be updated as necessary to reflect organization changes. Exhibit 2-1 should be displayed within each of the industrial facilities so that other personnel are aware of who is responsible for storm water management.

2.2 RELATED OPERATIONS MANAGEMENT PLANS

Patrick AFB has several operations management plans that outline daily management, contingency, emergency response, and environmental compliance measures that contribute to storm water pollution prevention. While many of these documents have been prepared in response to other laws and regulations (i.e., RCRA), the actions they elicit result in the reduction in the exposure of hazardous materials and wastes to storm water. The SWPPP can incorporate such documents by reference (General Permit, Section A, Item 7). Specific application of these documents to each of the facilities subject to storm water pollution prevention at Patrick AFB is discussed in subsequent chapters. Personnel handling hazardous materials and wastes at each of these facilities should refer to these documents for specific procedural and response guidance to prevent release of contaminants to storm water runoff at Patrick AFB. The following sections briefly summarize the relevant portions of these documents as they relate to storm water pollution prevention.

Petroleum Products and Hazardous Waste Management Plan (OPLAN 19-14)

The Petroleum Products and Hazardous Waste Management Plan is designed to ensure that identification, handling, storage, and removal of hazardous waste from the base is performed in full compliance with applicable federal, state, and local regulatory requirements. This plan applies to all operations involving hazardous wastes at Patrick AFB. For the most part, the procedures and requirements contained in this plan are mandated by law, and are not discretionary.

The Petroleum Products and Hazardous Waste Management Plan specifically addresses hazardous waste management practices at the permitted Hazardous Waste Storage Facility (Building 958S) operated by 45 CES/CEV. This document includes requirements for the following items :

- Physical Parameters - Identifies items that must physically be in place at all hazardous waste collection/storage areas. Includes an "Emergency Response Equipment List" as well as information on communication requirements.
- Record Keeping - Documents the required forms and procedures to be followed when transporting hazardous wastes on and off-site. Also details the required forms and reports that must be at each waste facility.
- Inspections - Outlines inspection requirements to detect facility malfunctions, deterioration, operator errors, and discharges which may be causing, or lead to the release of, hazardous waste to the environment. Prescribes weekly inspection, documentation, and recordkeeping requirements.
- Waste Management Procedures - Details information on the proper way to mark, label, store, and inspect containers used for the storage and/or transportation of hazardous wastes. Includes procedures for drums as well as for aboveground and underground storage tanks.
- Disposition of Wastes - Describes waste generators responsibilities for the proper disposition of wastes, with particular attention to used or waste petroleum products. Included in this section are procedures for filling out the "Process Waste Questionnaire".
- Spills - This section covers policies to be followed in the event of a spill or unplanned or non-permitted release of hazardous materials (or of any waste) to the environment. Included are notification, response and cleanup, and reporting requirements.

In addition to addressing the base hazardous waste storage facility, the plan also provides guidance for the proper handling and release response for hazardous and non-hazardous waste materials at all base collection/accumulation points.

Oil and Hazardous Substance Pollution Contingency Plan (OPLAN 19-1)

The purpose of the Oil and Hazardous Substance Pollution Contingency Plan is to implement Environmental Protection Agency (EPA) regulations for "preventing oil, hazardous substances, and hazardous waste from entering the environment from Patrick Air Force Base". The plan defines the responsibilities for operators of oil and/or hazardous substance storage facilities which have the potential to leak, spill, or discharge such substances. The responsibilities outlined in the plan include notification procedures, reporting requirements, sampling requirements, as well as containment, countermeasures, cleanup, and restoration procedures.

Details on specific areas of the base, including fuel storage and handling facilities as well as the permitted Hazardous Waste Storage Facility (Building 958S) are also included in the plan. A listing of all storage and handling facilities for fuel and hazardous materials is presented, which includes information on such items as the location of the facility, the type of material stored, as well as the types of inspections, maintenance activities, and security measures that are employed at the facility. Physical attributes of the facility are also presented, including the type of secondary containment employed, piping descriptions, overfill protection equipment, and leak detection procedures.

RCRA Permit

This permit covers the Hazardous Waste Storage Facility (Building 958S) at Patrick AFB. Included in the permit (either directly or through the citation of relevant documents) are general as well as specific rules and requirements that operators of the facility must observe. Some of the cited items include required forms and reports; storage, maintenance, and inspection requirements, and descriptions of types and quantities of wastes typically stored at the facility.

2.3 TRAINING PLANS

All persons who have contact with hazardous chemicals in the workplace are required to participate in the Department of Defense Federal Hazard Communication Training Program. The intent of HAZCOM training, or "Right to Know" as it is commonly referred to, is twofold. First, it provides disclosure to employees of specific materials they are exposed to in the workplace. Employers, including government agencies, are responsible for providing this information to all employees. HAZCOM standards go further than basic disclosure, however. Compliance is essentially focused on training that enhances an employee's ability

to safely and properly handle, store, treat, and dispose of hazardous materials.

All persons who routinely handle hazardous wastes are also responsible for having documented hazardous waste training as required by 40 CFR 264.16 and 29 CFR 1910.120. The training does not necessarily have to be the program offered by 45 CES/CEV. The course offered by the Air Force instructs the employees on the legislation dealing with hazardous materials and pollution control. Outside of permitted TSD (treatment, storage, or disposal) facilities for hazardous waste, which as an entity Patrick AFB is not, there are no formal requirements for hazardous training beyond HAZCOM. There are, however, a large number of chemical and waste-specific BMPs that can be attended to. Increased awareness and training regarding specific waste products not only improves pollution prevention practices, but supports operation-specific environmental compliance requirements as well. In Patrick's hazardous waste training program, information is provided on what constitutes a hazardous waste, and how to handle, store, label, and dispose of different types of wastes.

The Hazardous Waste Handler's course voluntarily complies with OSHA requirements for training of full time hazardous waste workers, despite the fact that Patrick AFB personnel do not meet the regulatory definition. A refresher course is provided on an annual basis to keep the employees up to date on the correct practices for dealing with hazardous wastes.

EXHIBIT 2-1
POLLUTION PREVENTION TEAM
MEMBER ROSTER

Completed by: _____
Title: _____
Date: _____

Leader: _____ Title: _____
Office Phone: _____

Responsibilities: _____

Members:
(1) _____ Title: _____
Office Phone: _____

Responsibilities: _____

(2) _____ Title: _____
Office Phone: _____

Responsibilities: _____

(3) _____ Title: _____
Office Phone: _____

Responsibilities: _____

(4) _____ Title: _____
Office Phone: _____

Responsibilities: _____



3. ASSESSMENT OF INDUSTRIAL FACILITIES AT PATRICK AFB

3.1 PERMITTED HAZARDOUS WASTE STORAGE FACILITY

3.1.1 Description of Potential Pollutant Sources

This portion of the SWPPP identifies potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. This information will be used to target the most important sources for corrective and/or preventive action. The information presented in this chapter shall be updated as appropriate during the term of the Group Permit.

3.1.1.1 Drainage

The permitted hazardous waste storage facility is located east of South Patrick Drive, just north of the Eastern Space and Missile Center, as shown in Figure 3-1. It is a new, completely enclosed facility designed to prevent internal spills from escaping the facility.

The EPA General Permit requires that a site map be developed to show specific industrial areas and the associated storm water drainage system [Part IV.D.2.a(1)]. The hazardous waste storage facility with associated drainage patterns is shown in Figure 3-1. For this industrial area there are no structural storm water pollution control measures; areas with significant erosion potential; outdoor vehicle maintenance/washing areas; above ground storage tanks; exposed raw materials, by-products, or finished products; or outside manufacturing areas.

3.1.1.2 Inventory of Exposed Materials

In order to be considered an exposed material under the EPA General Permit, the material would have to be handled, treated, stored, or disposed in such a manner that would make it reasonable to believe that significant amounts of the material would be present in storm water. There are no such materials meeting this requirement at the hazardous waste storage facility. Should a change in this status occur, Exhibit 3-1-1 should be completed to include a list of the exposed materials, the method and location of on-site storage or disposal, a description of any existing structural or non-structural control management practices to reduce pollutants in storm water runoff, and a description of any treatment the storm water receives.



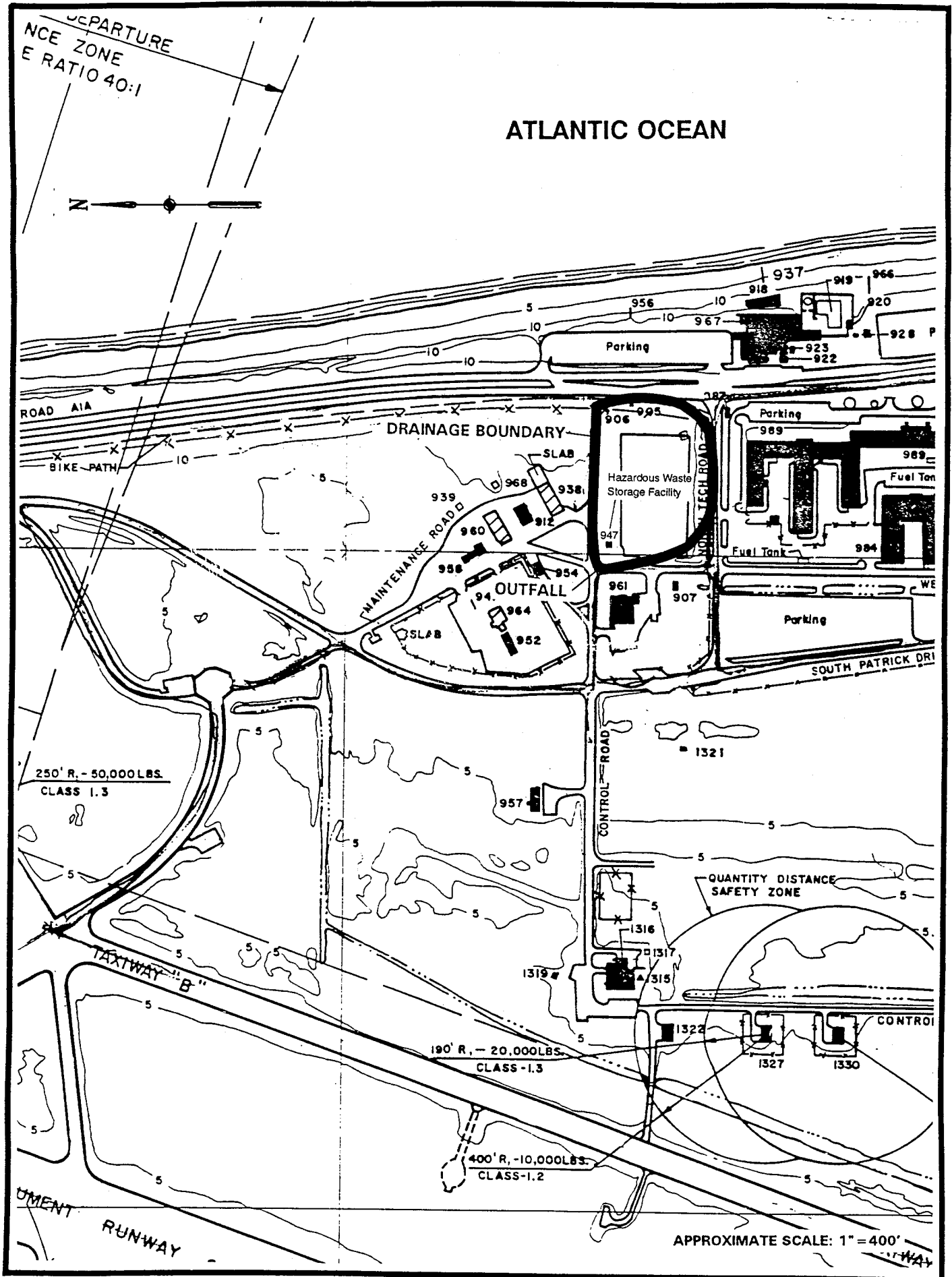


Figure 3-1. Facility map - Hazardous Waste Storage Facility.



3.1.1.3 Spills and Leaks

The EPA General Permit requires that a list be compiled of significant spills or leaks of toxic or hazardous pollutants that have occurred in areas that are exposed to precipitation or that otherwise drain to a storm water conveyance. No significant such spills or leaks of toxic or hazardous pollutants have occurred since 1 October 1989 at the hazardous waste storage facility. Exhibit 3-1-2 should be used to record significant spills or leaks of toxic or hazardous pollutants that occur during the term of the Permit and is to be maintained in Appendix B of this SWPPP. A significant spill is defined in the EPA General Permit to include, but not be limited to, releases of oil or hazardous substances in excess of reportable quantities.

3.1.1.4 Storm Water Sampling Data

The EPA General Permit requires that the SWPPP contain a summary of existing discharge sampling data describing pollutants in storm water and also a summary of any sampling data collected during the term of the General Permit (Part IV.D.2.d). No sampling data describing pollutants in storm water discharges from the hazardous waste storage facility are available as of the date of preparation of this SWPPP and storm water sampling is not required by the Group Permit. If storm water sampling is conducted for other reasons during the term of the Group Permit, the results should be recorded on Exhibit 3-1-3 and maintained in Appendix C of this SWPPP.

3.1.1.5 Risk Identification and Summary of Potential Pollutant Sources

The potential pollutant sources associated with the following activities must be assessed: loading and unloading operations; outdoor storage activities; outdoor manufacturing or processing activities; significant dust or particulate generating processes; and on-site waste disposal practices (Part IV.D.2.e). The potential pollutant sources discussed below are listed in Exhibit 3-1-4. A more detailed listing of the types of materials potentially stored at the facility is presented below:

Isopropyl alcohol (IPA)/water
IPA/phosphoric acid
Monoethanolamine
Methyl Ethyl/Keyton (MEK)
Phenolic/Methylene Chloride stripper
Mixed halogenated &
nonhalogenated solvents
(F003 = flam/F002 = non-flam)
Trichloroethane (TCA)/IPA or
Trichloroethylene (TCE)/IPA
Paint-related material
Waste Paints
Kodak black dye (Xylene)
Oil/Solids/Water contaminated
with toxic organics
Acetone
Methanol
Feon 113/mineral spirits
flux remover 90%
Tetrachloroethylene
TCE
TCA
Spent B&B methylene chloride
paint stripper
Chloroform methanol/TCA oil
methylenechlorodie/freon/perchloroethylene
Oil/halogenated solvents
1,1,2-Trichloroethane
Lithium Chloride/Cd/Cr/Pb/Se
Alodine rinsewater (RW)
Color photofixers
Ammonium Hydroxide
Photographic/Ag
Mercury batteries
Lithium batteries
Mercury solids

Paint/solvent/rags
Activated Carbon with Chrome
OBA canisters
Paint chips/Pb/Se
Ox Scubber/NaOH
Oil/water/solids contaminated with toxic metals
Sludges from electroplating
Pyridine solid
Formaldehyde
Hydrofluoric acid
Solid sodium cyanide
Phenol
Xylene
Explosives
Sulfuric battery acid
15% phosphoric acid
HNO₃/Sodium Dichromate
HNO₃, 4% Hydrofluoric (HF) acid
HCL/Trace Hg
<40% Nitric/trace Hg
NaOH/Cd/Pb (eletrolyte from
Nicaid batteries)
Oakite Rust Stripper
Magnus Cleaner = 75% NaOH, 25%
K Cresylate
Nitric/Nitrad Etchant
Nitric, Chromic and HF Acids
Mecuric Nitrate

The hazardous waste is completely enclosed within the facility and is therefore not exposed to storm water. There is a potential for accidental spillage during the loading/unloading process, but this risk is slight. Should an accidental spill occur outside the facility, there is equipment on-site to contain the spill. There are no outdoor storage activities, no manufacturing or processing activities, no significant dust or particulate generating processes, or no on-site disposal of waste at the hazardous waste storage facility.

3.1.2 Measures and Controls

The selection of appropriate storm water management controls is based on the potential pollutant sources identified in the previous section. The components of the storm water management controls include (1) good housekeeping, (2) preventive maintenance, (3) spill prevention and response procedures, (4) inspections, (5) employee training, (6) sediment and erosion control, (7) management of runoff, and (8) management controls implementation (Part IV.D.3a-i).

3.1.2.1 Good Housekeeping

Good housekeeping practices were designed to maintain a clean and orderly work environment. Elements of good housekeeping include material storage practices, material inventory controls, routine and regular cleanup schedules, well-organized work areas, and educational programs for employees. Specific good housekeeping practices include:

- Maintaining dry and clean floors and ground surfaces by using brooms, shovels, vacuum cleaners, or cleaning machines;
- Regularly picking up and disposing of garbage and waste material;
- Routinely inspecting for leaks or conditions that could lead to discharges of materials or contact with storm water;
- Ensuring spill cleanup procedures are understood by employees;
- Storing containers, drums, and bags away from direct traffic routes to prevent accidental spills;
- Preparing guidelines for, and making personnel aware of, materials not suitable for outdoor storage (e.g., batteries) and limiting the length of time material is stored outdoors;

- Storing containers on pallets or similar devices to prevent corrosion from containers coming in contact with moisture on the ground;
- Labeling all containers (hazardous and non-hazardous) to show the name and type of substance, stock number, expiration date, health hazards, suggestions for handling, and first aid information;
- Clearly labeling all hazardous material containers that require special handling, storage, use, and disposal considerations;
- Incorporating information sessions on good housekeeping practices into the employee training program;

3.1.2.2 Preventive Maintenance

Preventive maintenance is the regular inspection and maintenance of equipment, operational systems, and storm water management devices before a failure occurs (Part IV.D.3.b). The preventive maintenance program includes identification of conditions that could cause breakdowns or failures that could result in discharges of materials to storm drains and surface waters. The facility will be inspected to include the following:

- Conditions that could lead to direct contact of storm water with significant materials;
- Piping, pumps, storage tanks and bins, pressure vessels, pressure release valves, process and material handling equipment, and material bulk storage areas for leaks, wind blowing, corrosion, support or foundation failure, or other deterioration or non-containment; and
- Storm water management devices (oil/water separators, catch basins, or other structural or treatment management practices).

Preventive maintenance inspections must occur on a monthly basis. It is the responsibility of the individual assigned to ensure that the inspections are performed and that any problems uncovered during the inspections are promptly corrected. Exhibit 3-1-5 should be used to record the areas or equipment that require any corrective action, along with the person who conducted the test or inspection, the inspection results, and the corrective action. The record of the preventive maintenance inspections is to be kept as part of this SWPPP in Appendix E.

3.1.2.3 Spill Prevention and Response Procedures

Spill prevention and response procedures include identifying areas of the facility where spills can occur and their flow path to the storm drainage system; specifying material handling

procedures, storage requirements, and use of equipment such as diversion valves; identifying procedures used for cleaning up spills and informing personnel about these procedures; and providing appropriate spill clean-up equipment to personnel (Part IV.D.3.c). The existing Spill Controls and Countermeasure Plan (SPCC) complies with and meets these objectives.

3.1.2.4 Inspections

Monthly inspections will be conducted to ensure that the elements of the SWPPP are in place and working properly. These routine inspections are not meant to be an all-encompassing examination of the entire storm water pollution prevention program--that is the function of the comprehensive site evaluation (Section 4.1). Monthly inspections will include:

- Material handling areas (e.g., loading, unloading, transfer);
- Conditions that could lead to direct contact of storm water with significant materials;
- Piping, pumps, storage tanks and bins, pressure vessels, pressure release valves, process and material handling equipment, and material bulk storage areas for leaks, wind blowing, corrosion, support or foundation failure, or other deterioration or non-containment;
- Storm water management devices (oil/water separators, catch basins, or other structural or treatment management practices);
- Corroded drums, or drums without plugs;
- Corroded or leaking pipes;
- Leaking or improperly closed valves and valve fittings;
- Leaking pumps and/or hose connections;
- General good housekeeping conditions.

It is the responsibility of the individual assigned to ensure that the inspections are performed and that any problems uncovered during the inspections are corrected. Exhibit 3-1-5 should be used to record the areas or equipment that require any corrective action, along with the person who conducted the inspection, the inspection results, and the corrective action. The record of the inspections is to be kept as part of this SWPPP in Appendix E.

3.1.2.5 Employee Training

To meet the objectives of the SWPPP the employee training program requires that the hazardous waste storage facility personnel be instructed as to their responsibilities relative to the SWPPP (Part IV.D.3.e). New personnel are to be trained within 30 days and all personnel are to receive training every year to refresh and update them on the components and goals of the SWPPP. Topics are to include spill prevention and response, good housekeeping, and material management practices.

With respect to spill prevention and response procedures, the training program is to target all personnel involved in industrial activities, not just those on the spill response teams. It is required that all hazardous waste storage facility personnel receive instruction in the prevention, control, containment, and cleanup of spills.

The training program includes the following:

- Identifying potential spill areas and drainage routes, including information on the causes of past spills;
- Reporting spills to appropriate individuals (employees are not penalized for reporting a spill);
- Specifying material handling procedures and storage requirements; and
- Implementing spill response procedures.

On-site contractors and temporary personnel are also informed of the plant operating procedures designed to help prevent accidental discharges or spills from occurring.

The following good housekeeping points are to be emphasized:

- Regular vacuuming and/or sweeping;
- Prompt cleanup of spilled materials to prevent contaminated runoff;
- Identification of places where brooms, vacuums, sorbents, foams, neutralizing agents, and other good housekeeping and spill response equipment are located;
- Posting of signs reminding personnel of the importance and procedures of good housekeeping;

- Instruction on securing drums and containers and checking for leaks and spills; and
- Regular scheduling of housekeeping activities.

The elements of the employee training program are to be documented in Exhibit 3-1-6 and maintained in the SWPPP.

3.1.2.6 Sediment and Erosion Control

The EPA General Permit requires that areas having a high potential for significant soil erosion be identified and stabilization measures proposed (Part IV.D.3.h). There are no areas of the hazardous waste storage facility that experience significant soil erosion. Areas of the facility that are not paved are vegetated with grass. The storm water runoff is conveyed by storm drains or by grassed channels. Any portion of a grassed channel that requires stabilization against erosion must be reseeded, using temporary stabilization measures such as straw with net; curled wood mat; jute, paper, or synthetic net; synthetic mat; or fiberglass roving, or sodded. Areas of ongoing erosion must be stabilized with riprap.

Development activity will also increase the potential for soil erosion. To minimize soil erosion and sedimentation from land disturbed by construction activity, a sediment control plan must be developed in accordance with local regulations. Additionally, construction activities greater than 5 acres must apply for and be in compliance with the NPDES general permit for storm water discharges from construction sites.

3.1.2.7 Management of Runoff

The measures and controls discussed in Sections 3.1.2.1 through 3.1.2.6 are designed to reduce pollutants at the source before they have the opportunity to contaminate storm water runoff. In this section, the appropriateness of storm water management practices that prevent pollutants in the runoff from leaving the site are considered.

Because the operation of the hazardous waste storage facility at Patrick AFB does not appear to adversely impact the quality of storm water runoff, no traditional storm water management practices are required or proposed at the time of the initial preparation of this SWPPP. Traditional storm water management practices are defined as those practices other than those which control the generation or source(s) of pollutants. These traditional storm water management practices include diversions, detention/retention/infiltration facilities, reuse, or treatment. However, if it is determined that storm water management practices are required,

the viability of implementation of the management practices will require a cost study. When a management device is installed, it should be inspected as part of Section 3.1.2.4.

3.1.2.8 Management Controls Implementation

The management controls that have been identified in Sections 3.1.2.1 through 3.1.2.8 are summarized in Exhibit 3-1-7. The implementation schedule of these controls is presented in Exhibit 3-1-8. However, the primary purpose of these two exhibits is to document ongoing identification and implementation of controls throughout the term of the Group Permit.

3.1.3 Non-Storm Water Discharges

Non-storm water discharges to the waters of Florida, which are not authorized by an NPDES permit, are unlawful and must be terminated or appropriate NPDES permit application forms must be submitted. All discharges covered by the Group Permit are to be composed entirely of storm water; however, the following non-storm water discharges may be authorized (Part III.A.2.b):

- Fire fighting activities;
- Fire hydrant flushings;
- Potable water sources including waterline flushings;
- Irrigation drainage;
- Lawn watering;
- Routine external building washdown which does not use detergents or other compounds;
- Pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
- Air conditioning condensate;
- Springs;
- Uncontaminated ground water; and

- Foundations or footing drains where flow is not contaminated with process materials such as solvents.

The EPA General Permit requires that the SWPPP include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges [(Part IV.D.3.g(1)]. The certification must include the identification of potential significant sources of non-storm water at the site, a description of the results of any test and/or evaluation for the presence of non-storm water discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test. Except for flows from fire fighting activities, sources of non-storm water that combine with storm water discharges associated with industrial activity must be identified in the SWPPP [Part IV.D.3.g(2)].

The results of the assessment and certification of non-storm water discharge are to be recorded on Exhibit 3-1-9. If the certification is not feasible because the outfall is not accessible, Exhibit 3-1-10 must be completed, and the regulatory authority notified (Part VI.A).

3.1.4 Additional Requirements

The EPA General Permit imposes additional requirements for (1) storm water discharges associated with industrial activity through municipal storm sewer systems serving a population of 100,000 or more (Part IV.D.5), (2) storm water discharges associated with industrial activity from facilities subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313 [also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986] requirements (Part IV.D.7), and (3) salt storage (Part IV.D.8). There are no activities at Patrick AFB that result in these additional requirements being imposed.

3.2 FLIGHT LINE AND MAINTENANCE HANGAR AREAS

3.2.1 Description of Potential Pollutant Sources

This portion of the SWPPP identifies potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. This information will be used to target the most important sources for corrective and/or preventive action. The information presented in this chapter shall be updated as appropriate during the term of the Group Permit.

3.2.1.1 Drainage

The flight line and maintenance hangar areas are located along the northern end of the base runways, as shown in Figure 3-2a. The industrial components of these areas includes the maintenance hangars, apron areas where refueling takes place, and the POL storage and transfer facilities. Although there is very little relief, runoff from this area generally flows west to the Banana River. There are also two aircraft maintenance hangars associated with Department of State activities located just west of the Eastern Space and Missile Center. This facility is included under the flight line and maintenance hangar category and is shown in Figure 3-2b.

The EPA General Permit requires that a site map be developed to show specific industrial areas and the associated storm water drainage system [Part IV.D.2.a(1)]. The flight line and maintenance hangar areas with associated drainage patterns are shown in Figures 3-2a and b. For these industrial areas there are no structural storm water pollution control measures; areas with significant erosion potential; exposed raw materials, by-products, or finished products; or outside manufacturing areas.

3.2.1.2 Inventory of Exposed Materials

In order to be considered an exposed material under the EPA General Permit, the material would have to be handled, treated, stored, or disposed in such a manner that would make it reasonable to believe that significant amounts of the material would be present in storm water runoff. There are no such materials meeting this requirement at the flight line and maintenance hangar areas. Should a change in this status occur, Exhibit 3-2-1 should be completed to include a list of the exposed materials, the method and location of on-site storage or disposal, a description of any existing structural or non-structural control management practices to reduce pollutants in storm water runoff, and a description of any treatment the storm water receives.

3.2.1.3 Spills and Leaks

The EPA General Permit requires that a list be compiled of significant spills or leaks of toxic or hazardous pollutants that have occurred in areas that are exposed to precipitation or that otherwise drain to a storm water conveyance. No significant such spills or leaks of toxic or hazardous pollutants have occurred since 1 October 1989 at the flight line and maintenance hangar areas. Exhibit 3-2-2 should be used to record significant spills or leaks of toxic or hazardous pollutants that occur during the term of the Permit and is to be maintained in

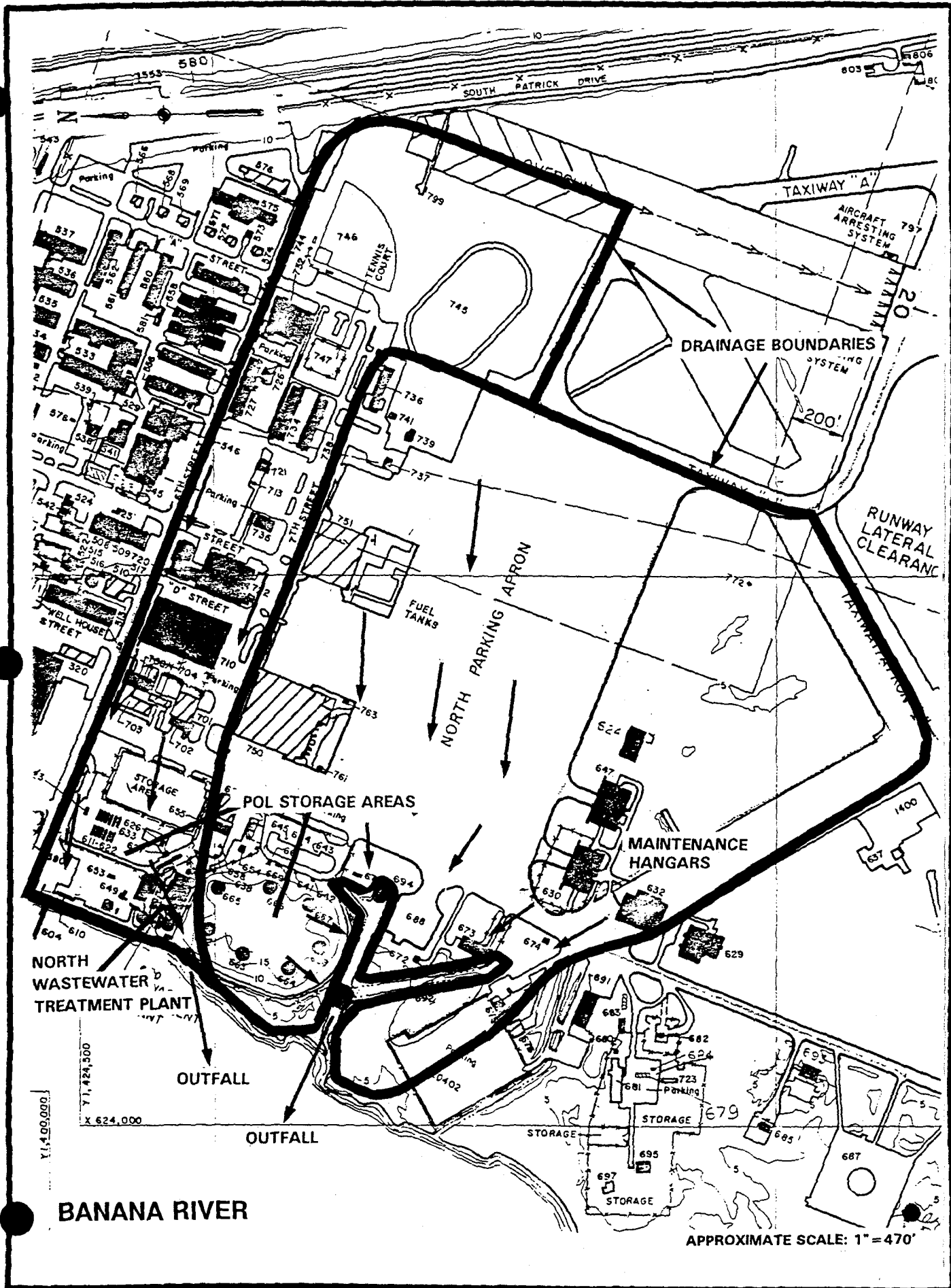


Figure 3-2a. Facility map - Flight Line and Maintenance Hangar Areas, North Wastewater Treatment Plant.



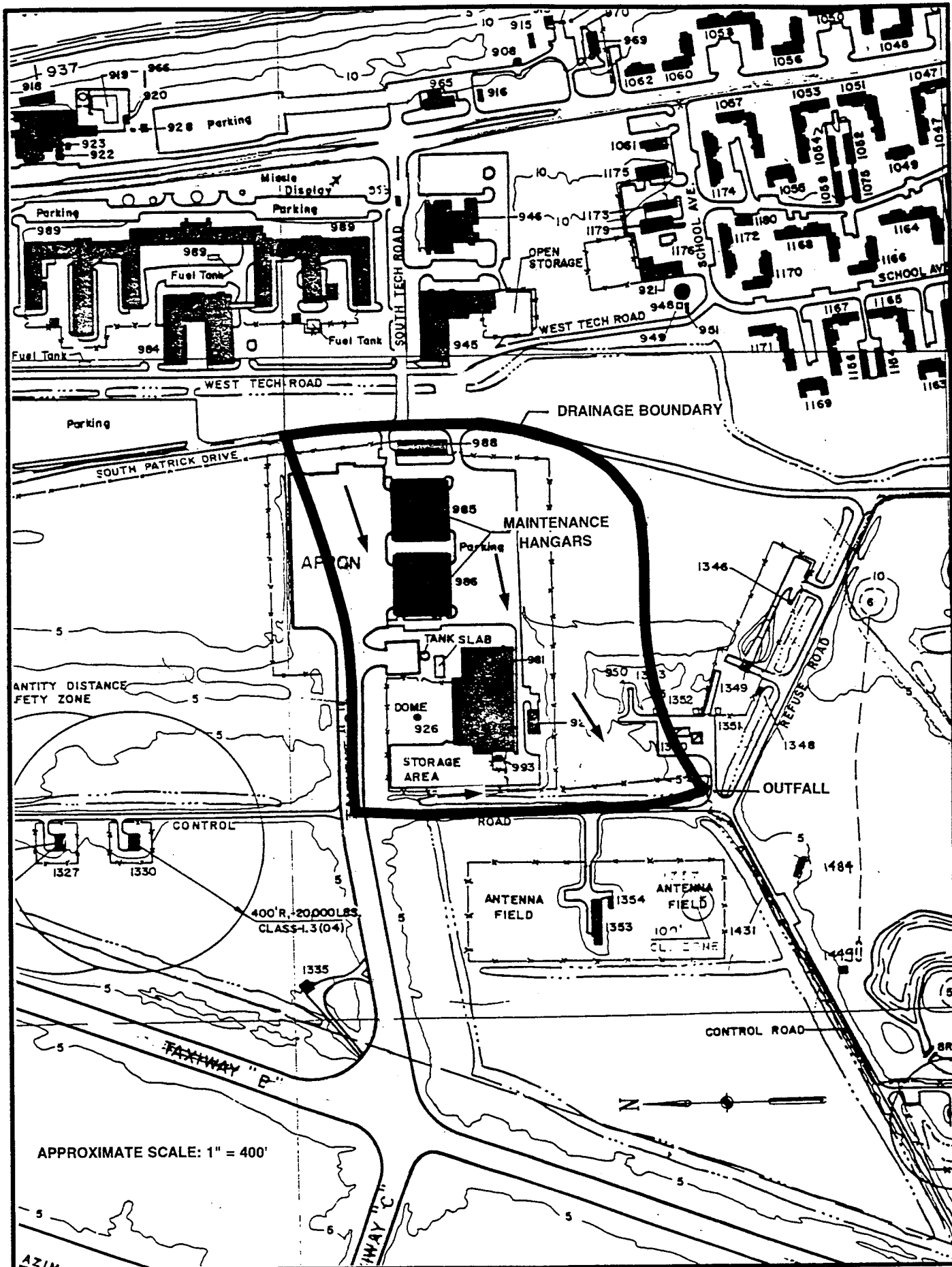


Figure 3-2b. Facility map - Department of State Flight Line and Maintenance Hangar Area.



Appendix B of this SWPPP. A significant spill is defined in the EPA General Permit to include, but not be limited to, releases of oil or hazardous substances in excess of reportable quantities.

3.2.1.4 Storm Water Sampling Data

The EPA General Permit requires that the SWPPP contain a summary of existing discharge sampling data describing pollutants in storm water and also a summary of any sampling data collected during the term of the General Permit (Part IV.D.2.d). No sampling data describing pollutants in storm water discharges from the flight line and maintenance hangar areas are available as of the date of preparation of this SWPPP and storm water sampling is not required by the Group Permit. If storm water sampling is conducted for other reasons during the term of the Group Permit, the results should be recorded on Exhibit 3-2-3 and maintained in Appendix C of this SWPPP.

3.2.1.5 Risk Identification and Summary of Potential Pollutant Sources

The potential pollutant sources associated with the following activities must be assessed: loading and unloading operations; outdoor storage activities; outdoor manufacturing or processing activities; significant dust or particulate generating processes; and on-site waste disposal practices (Part IV.D.2.e). The potential pollutant sources discussed below are listed in Exhibit 3-2-4.

The greatest potential for contributing pollutants to storm water runoff from the flight line and maintenance hangar areas is the loading and off-loading of fuel. Accidental spills, leaks, and incidental splashing during the transfer process have the potential to contribute significant amounts of pollutants to storm water. Adherence to correct fueling procedures as well as prompt attention to accidental spills should minimize storm water pollution.

Another potential pollution source are the POL storage tanks themselves. Tank ruptures, leaky valves, cracks in secondary containment devices, or faulty leak detection equipment can all play a role. Infrequent failures such as these should pose only a minimal risk if prescribed inspection and maintenance schedules are observed.

There are no manufacturing or processing activities, sources of significant amounts of dust or particulates, or on-site waste disposal practices ongoing at the flight line and maintenance hangar areas.

3.2.2 Measures and Controls

The selection of appropriate storm water management controls is based on the potential pollutant sources identified in the previous section. The components of the storm water management controls include (1) good housekeeping, (2) preventive maintenance, (3) spill prevention and response procedures, (4) inspections, (5) employee training, (6) sediment and erosion control, (7) management of runoff, and (8) management controls implementation (Part IV.D.3a-i).

3.2.2.1 Good Housekeeping

Good housekeeping practices were designed to maintain a clean and orderly work environment. Elements of good housekeeping include material storage practices, material inventory controls, routine and regular cleanup schedules, well-organized work areas, and educational programs for employees. Specific good housekeeping practices include:

- Maintaining dry and clean floors and ground surfaces by using brooms, shovels, vacuum cleaners, or cleaning machines;
- Regularly picking up and disposing of garbage and waste material;
- Routinely inspecting for leaks or conditions that could lead to discharges of materials or contact with storm water;
- Ensuring spill cleanup procedures are understood by employees;
- Storing containers, drums, and bags away from direct traffic routes to prevent accidental spills;
- Preparing guidelines for, and making personnel aware of, materials not suitable for outdoor storage (e.g., batteries) and limiting the length of time material is stored outdoors;
- Storing containers on pallets or similar devices to prevent corrosion from containers coming in contact with moisture on the ground;
- Labeling all containers (hazardous and non-hazardous) to show the name and type of substance, stock number, expiration date, health hazards, suggestions for handling, and first aid information;
- Clearly labeling all hazardous material containers that require special handling, storage, use, and disposal considerations;

- Incorporating information sessions on good housekeeping practices into the employee training program;

3.2.2.2 Preventive Maintenance

Preventive maintenance is the regular inspection and maintenance of equipment, operational systems, and storm water management devices before a failure occurs (Part IV.D.3.b). The preventive maintenance program includes identification of conditions that could cause breakdowns or failures that could result in discharges of materials to storm drains and surface waters. The facility will be inspected to include the following:

- Conditions that could lead to direct contact of storm water with significant materials;
- Piping, pumps, storage tanks and bins, pressure vessels, pressure release valves, process and material handling equipment, and material bulk storage areas for leaks, wind blowing, corrosion, support or foundation failure, or other deterioration or non-containment; and
- Storm water management devices (oil/water separators, catch basins, or other structural or treatment management practices).

Preventive maintenance inspections must occur on a monthly basis. It is the responsibility of the individual assigned to ensure that the inspections are performed and that any problems uncovered during the inspections are promptly corrected. Exhibit 3-2-5 should be used to record the areas or equipment that require any corrective action, along with the person who conducted the test or inspection, the inspection results, and the corrective action. The record of the preventive maintenance inspections is to be kept as part of this SWPPP in Appendix E.

3.2.2.3 Spill Prevention and Response Procedures

Spill prevention and response procedures include identifying areas of the facility where spills can occur and their flow path to the storm drainage system; specifying material handling procedures, storage requirements, and use of equipment such as diversion valves; identifying procedures used for cleaning up spills and informing personnel about these procedures; and providing appropriate spill clean-up equipment to personnel (Part IV.D.3.c). The existing Spill Controls and Countermeasure Plan (SPCC) complies with and meets these objectives.

3.2.2.4 Inspections

Monthly inspections will be conducted to ensure that the elements of the SWPPP are in place and working properly (Part IV.D.3.d). These routine inspections are not meant to be an all-encompassing examination of the entire storm water pollution prevention program--that is the function of the comprehensive site evaluation (Section 4.1). Monthly inspections will include:

- Material handling areas (e.g., loading, unloading, transfer);
- Conditions that could lead to direct contact of storm water with significant materials;
- Piping, pumps, storage tanks and bins, pressure vessels, pressure release valves, process and material handling equipment, and material bulk storage areas for leaks, wind blowing, corrosion, support or foundation failure, or other deterioration or non-containment;
- Storm water management devices (oil/water separators, catch basins, or other structural or treatment management practices);
- Corroded drums, or drums without plugs;
- Corroded or leaking pipes;
- Leaking or improperly closed valves and valve fittings;
- Leaking pumps and/or hose connections;
- General good housekeeping conditions.

It is the responsibility of the individual assigned to ensure that the inspections are performed and that any problems uncovered during the inspections are corrected. Exhibit 3-2-5 should be used to record the areas or equipment that require any corrective action, along with the person who conducted the inspection, the inspection results, and the corrective action. The record of the inspections is to be kept as part of this SWPPP in Appendix E.

3.2.2.5 Employee Training

To meet the objectives of the SWPPP the employee training program requires that personnel at the flight line and maintenance hangar facilities be instructed as to their responsibilities relative to the SWPPP (Part IV.D.3.e). New personnel are to be trained within 30 days and all personnel are to receive training every year to refresh and update them on the components

and goals of the SWPPP. Topics are to include spill prevention and response, good housekeeping, and material management practices.

With respect to spill prevention and response procedures, the training program is to target all personnel involved in industrial activities, not just those on the spill response teams. It is required that all flight line, maintenance hangar, and POL storage personnel receive instruction in the prevention, control, containment, and cleanup of spills.

The training program includes the following:

- Identifying potential spill areas and drainage routes, including information on the causes of past spills;
- Reporting spills to appropriate individuals (employees are not penalized for reporting a spill);
- Specifying material handling procedures and storage requirements; and
- Implementing spill response procedures.

On-site contractors and temporary personnel are also informed of the plant operating procedures designed to help prevent accidental discharges or spills from occurring.

The following good housekeeping points are to be emphasized:

- Regular vacuuming and/or sweeping;
- Prompt cleanup of spilled materials to prevent contaminated runoff;
- Identification of places where brooms, vacuums, sorbents, foams, neutralizing agents, and other good housekeeping and spill response equipment are located;
- Posting of signs reminding personnel of the importance and procedures of good housekeeping;
- Instruction on securing drums and containers and checking for leaks and spills; and
- Regular scheduling of housekeeping activities.

The elements of the employee training program are to be documented in Exhibit 3-2-6 and maintained in the SWPPP.

3.2.2.6 Sediment and Erosion Control

The EPA General Permit requires that areas having a high potential for significant soil erosion be identified and stabilization measures proposed (Part IV.D.3.h). There are no areas of the flight line and maintenance hangar areas that experience significant soil erosion. Areas of the facility that are not paved are vegetated with grass. The storm water runoff is conveyed by storm drains or by grassed channels. Any portion of a grassed channel that requires stabilization against erosion must be reseeded, using temporary stabilization measures such as straw with net; curled wood mat; jute, paper, or synthetic net; synthetic mat; or fiberglass roving, or sodded. Areas of ongoing erosion must be stabilized with riprap.

Development activity will also increase the potential for soil erosion. To minimize soil erosion and sedimentation from land disturbed by construction activity, a sediment control plan must be developed in accordance with local regulations. Additionally, construction activities greater than 5 acres must apply for and be in compliance with the NPDES general permit for storm water discharges from construction sites.

3.2.2.7 Management of Runoff

The measures and controls discussed in Sections 3.2.2.1 through 3.2.2.6 are designed to reduce pollutants at the source before they have the opportunity to contaminate storm water runoff. In this section, the appropriateness of storm water management practices that prevent pollutants in the runoff from leaving the site are considered.

Because the operation of the flight line and maintenance hangar areas at Patrick AFB does not appear to adversely impact the quality of storm water runoff, no traditional storm water management practices are required or proposed at the time of the initial preparation of this SWPPP. Traditional storm water management practices are defined as those practices other than those which control the generation or source(s) of pollutants. These traditional storm water management practices include diversions, detention/retention/infiltration facilities, reuse, or treatment. However, if it is determined that storm water management practices are required, the viability of implementation of the management practices will require a cost study. When a management device is installed, it should be inspected as part of Chapter 3.2.2.4.

3.2.2.8 Management Controls Implementation

The management controls that have been identified in Sections 3.2.2.1 through 3.2.2.8 are summarized in Exhibit 3-2-7. The implementation schedule of these controls is presented in Exhibit 3-2-8. However, the primary purpose of these two exhibits is to document ongoing identification and implementation of controls throughout the term of the Group Permit.

3.2.3 Non-Storm Water Discharges

Non-storm water discharges to the waters of Florida, which are not authorized by an NPDES permit, are unlawful and must be terminated or appropriate NPDES permit application forms must be submitted. All discharges covered by the Group Permit are to be composed entirely of storm water; however, the following non-storm water discharges may be authorized (Part III.A.2.b):

- Fire fighting activities;
- Fire hydrant flushings;
- Potable water sources including waterline flushings;
- Irrigation drainage;
- Lawn watering;
- Routine external building washdown which does not use detergents or other compounds;
- Pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
- Air conditioning condensate;
- Springs;
- Uncontaminated ground water; and
- Foundations or footing drains where flow is not contaminated with process materials such as solvents.

The EPA General Permit requires that the SWPPP include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges [(Part IV.D.3.g(1)]. The certification must include the identification of potential significant sources of non-storm water at the site, a description of the results of any test and/or evaluation for the presence of non-storm water discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test. Except for flows from fire fighting activities, sources of non-storm water that combine with storm water discharges associated with industrial activity must be identified in the SWPPP [Part IV.D.3.g(2)].

The results of the assessment and certification of non-storm water discharge are to be recorded on Exhibit 3-2-9. If the certification is not feasible because the outfall is not accessible, Exhibit 3-2-10 must be completed, and the regulatory authority notified (Part VI.A).

3.2.4 Additional Requirements

The EPA General Permit imposes additional requirements for (1) storm water discharges associated with industrial activity through municipal storm sewer systems serving a population of 100,000 or more (Part IV.D.5), (2) storm water discharges associated with industrial activity from facilities subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313 [also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986] requirements (Part IV.D.7), and (3) salt storage (Part IV.D.8). There are no activities at Patrick AFB that result in these additional requirements being imposed.

3.3 NORTH AND SOUTH WASTEWATER TREATMENT PLANTS

3.3.1 Description of Potential Pollutant Sources

This portion of the SWPPP identifies potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. This information will be used to target the most important sources for corrective and/or preventive action. The information presented in this chapter shall be updated as appropriate during the term of this Group Permit.

3.3.1.1 Drainage

The north wastewater treatment plant is located adjacent to the POL storage areas and borders the Banana River as shown in Figure 3-2. The South Wastewater Treatment Plant is located along the southern boundary of the base, just north of the marina as shown in Figure 3-3. Both treatment plants are considered industrial under the EPA General Permit because their respective permitted capacities equals the limit of one million gallons per day. Storm water runoff from both plants drains west towards the Banana River; from the north plant the drainage is direct; from the South Plant storm water first travels through a series of conveyances before entering the river.

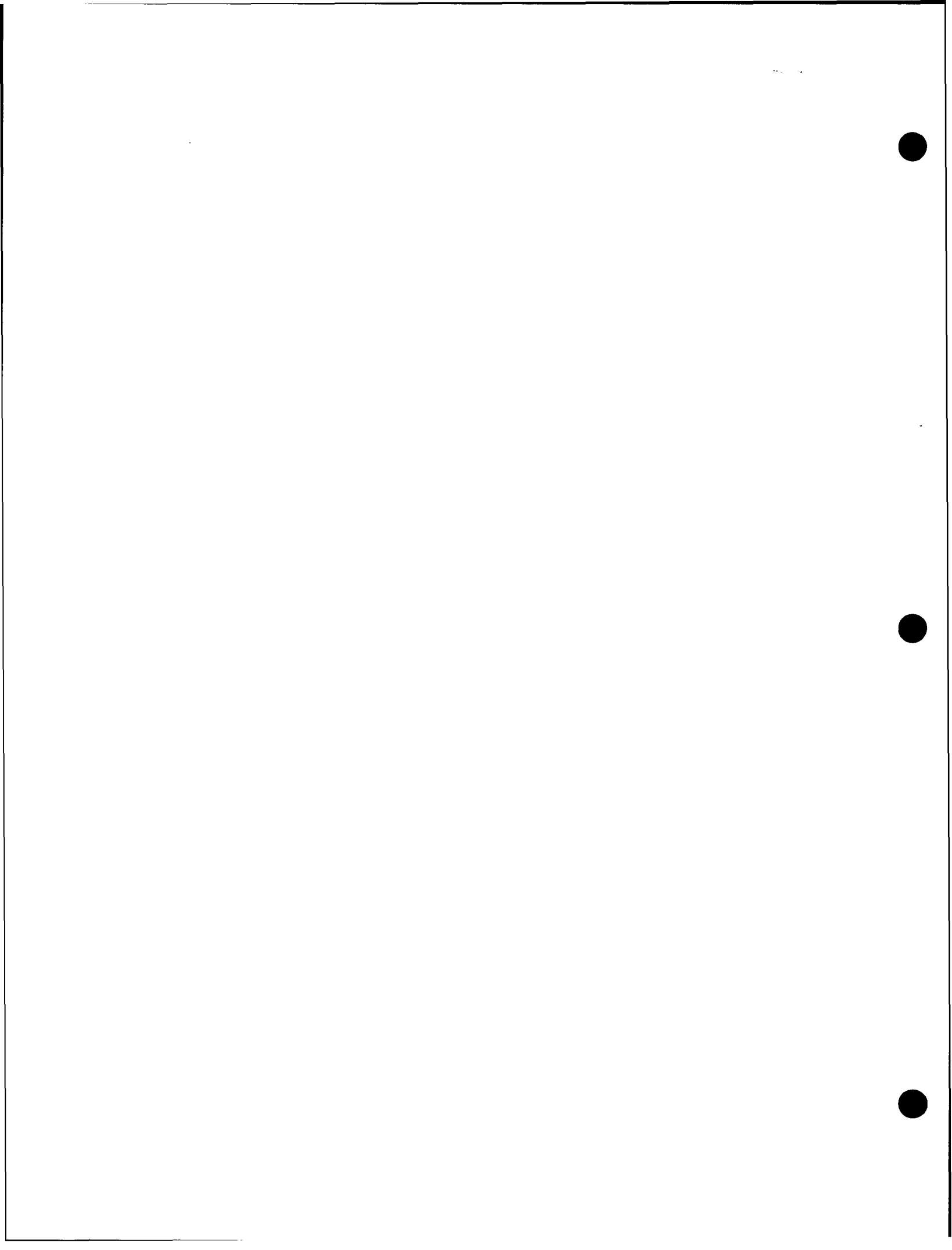
The EPA General Permit requires that a site map be developed to show specific industrial areas and the associated storm water drainage system [Part IV.D.2.a(1)]. The north and south wastewater treatment plants with associated drainage patterns are shown in Figures 3-2 and 3-3, respectively. For these industrial areas there are no structural storm water pollution control measures; areas with significant erosion potential; no outside vehicle maintenance/washing areas; exposed raw materials, by-products, or finished products; or outside manufacturing areas.

3.3.1.2 Inventory of Exposed Materials

In order to be considered an exposed material under the EPA General Permit, the material would have to be handled, treated, stored, or disposed in such a manner that would make it reasonable to believe that significant amounts of the material would be present in storm water runoff. There are no such materials meeting this requirement at the north or south wastewater treatment plants. Should a change in this status occur, Exhibit 3-3-1 should be completed to include a list of the exposed material, the method and location of on-site storage or disposal, a description of any existing structural or non-structural control management practices to reduce pollutants in storm water runoff, and a description of any treatment the storm water receives.

3.3.1.3 Spills and Leaks

The EPA General Permit requires that a list be compiled of significant spills or leaks of toxic or hazardous pollutants that have occurred in areas that are exposed to precipitation or that otherwise drain to a storm water conveyance. No significant such spills or leaks of toxic or hazardous pollutants have occurred since 1 October 1989 at the north or south wastewater



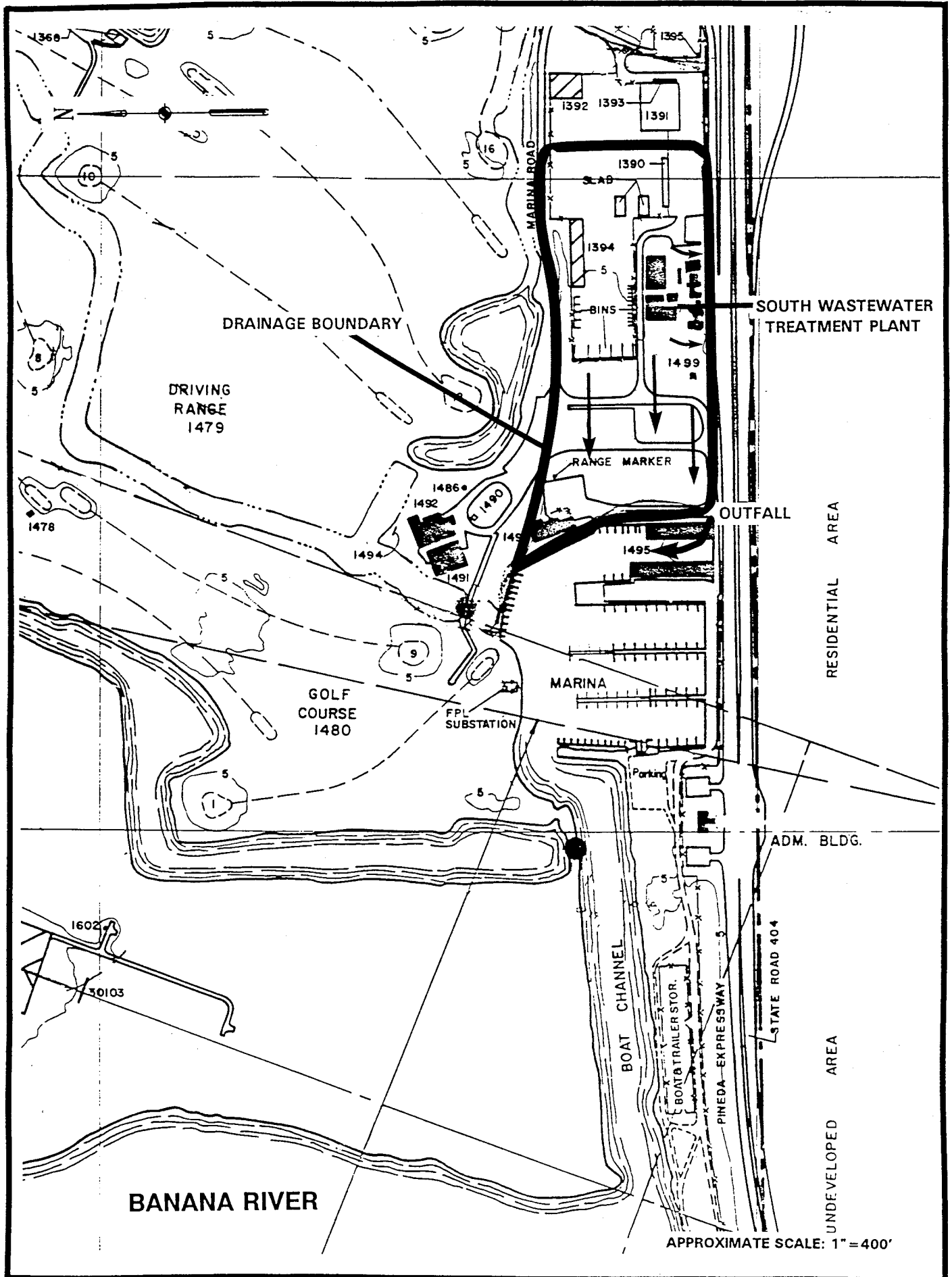


Figure 3-3. Facility map - South Wastewater Treatment Plant.



treatment plants. Exhibit 3-3-2 should be used to record significant spills or leaks of toxic or hazardous pollutants that occur during the term of the Permit and is to be maintained in Appendix B of this SWPPP. A significant spill is defined in the EPA General Permit to include, but not be limited to, releases of oil or hazardous substances in excess of reportable quantities.

3.3.1.4 Storm Water Sampling Data

The EPA General Permit requires that the SWPPP contain a summary of existing discharge sampling data describing pollutants in storm water and also a summary of any sampling data collected during the term of the General Permit (Part IV.D.2.d). No sampling data describing pollutants in storm water discharges from the north or south wastewater treatment plants are available as of the date of preparation of this SWPPP and storm water sampling is not required by the Group Permit. If storm water sampling is conducted for other reasons during the term of the Group Permit, the results should be recorded on Exhibit 3-3-3 and is to be maintained in Appendix C of this SWPPP.

3.3.1.5 Risk Identification and Summary of Potential Pollutant Sources

The potential pollutant sources associated with the following activities must be assessed: loading and unloading operations; outdoor storage activities; outdoor manufacturing or processing activities; significant dust or particulate generating processes; and on-site waste disposal practices (Part IV.D.2.e). The potential pollutant sources discussed below are listed in Exhibit 3-3-4.

The greatest sources of potential pollution of storm water runoff from either the north or south wastewater treatment plants are the 5,000 gallon ferric sulfate tanks located at each facility. The possibility of spillage during the loading or unloading process as well as the possibility of an equipment failure both present a potential risk of polluting storm water runoff. As with the POL tanks, the risk posed by these sources is small if prescribed transfer procedures and inspection schedules are observed.

There are no manufacturing or processing activities, sources of significant amounts of dust or particulates, or on-site waste disposal practices ongoing at either the north or south wastewater treatment plants that pose a significant risk of polluting storm water runoff. The small risk that is posed by both plants will be eliminated altogether by July 1995 as all wastes will be pumped to the city of Cocoa Beach municipal treatment plant for processing. At this time, both the

north and south wastewater treatment plants at Patrick AFB will be taken offline and dismantled.

3.3.2 Measures and Controls

The selection of appropriate storm water management controls is based on the potential pollutant sources identified in the previous section. The components of the storm water management controls include (1) good housekeeping, (2) preventive maintenance, (3) spill prevention and response procedures, (4) inspections, (5) employee training, (6) sediment and erosion control, (7) management of runoff, and (8) management controls implementation (Part IV.D.3a-i).

3.3.2.1 Good Housekeeping

Good housekeeping practices were designed to maintain a clean and orderly work environment. Elements of good housekeeping include material storage practices, material inventory controls, routine and regular cleanup schedules, well-organized work areas, and educational programs for employees. Specific good housekeeping practices include:

- Maintaining dry and clean floors and ground surfaces by using brooms, shovels, vacuum cleaners, or cleaning machines;
- Regularly picking up and disposing of garbage and waste material;
- Routinely inspecting for leaks or conditions that could lead to discharges of materials or contact with storm water;
- Ensuring spill cleanup procedures are understood by employees;
- Storing containers, drums, and bags away from direct traffic routes to prevent accidental spills;
- Preparing guidelines for, and making personnel aware of, materials not suitable for outdoor storage (e.g., batteries) and limiting the length of time material is stored outdoors;
- Storing containers on pallets or similar devices to prevent corrosion from containers coming in contact with moisture on the ground;
- Labeling all containers (hazardous and non-hazardous) to show the name and type of substance, stock number, expiration date, health hazards, suggestions for handling, and first aid information;

- Clearly labeling all hazardous material containers that require special handling, storage, use, and disposal considerations;
- Incorporating information sessions on good housekeeping practices into the employee training program;

3.3.2.2 Preventive Maintenance

Preventive maintenance is the regular inspection and maintenance of equipment, operational systems, and storm water management devices before a failure occurs (Part IV.D.3.b). The preventive maintenance program includes identification of conditions that could cause breakdowns or failures that could result in discharges of materials to storm drains and surface waters. The facility will be inspected to include the following:

- Conditions that could lead to direct contact of storm water with significant materials;
- Piping, pumps, storage tanks and bins, pressure vessels, pressure release valves, process and material handling equipment, and material bulk storage areas for leaks, wind blowing, corrosion, support or foundation failure, or other deterioration or non-containment; and
- Storm water management devices (oil/water separators, catch basins, or other structural or treatment management practices).

Preventive maintenance inspections must occur on a monthly basis. It is the responsibility of the individual assigned to ensure that the inspections are performed and that any problems uncovered during the inspections are promptly corrected. Exhibit 3-3-5 should be used to record the areas or equipment that require any corrective action, along with the person who conducted the test or inspection, the inspection results, and the corrective action. The record of the preventive maintenance inspections is to be kept as part of this SWPPP in Appendix E.

3.3.2.3 Spill Prevention and Response Procedures

Spill prevention and response procedures include identifying areas of the facility where spills can occur and their flow path to the storm drainage system; specifying material handling procedures, storage requirements, and use of equipment such as diversion valves; identifying procedures used for cleaning up spills and informing personnel about these procedures; and providing appropriate spill clean-up equipment to personnel (Part IV.D.3.c). The existing Spill Controls and Countermeasure Plan (SPCC) complies with and meets these objectives.

3.3.2.4 Inspections

Monthly inspections will be conducted to ensure that the elements of the SWPPP are in place and working properly (Part IV.D.3.d). These routine inspections are not meant to be an all-encompassing examination of the entire storm water pollution prevention program--that is the function of the comprehensive site evaluation (Section 4.1). Monthly inspections will include:

- Material handling areas (e.g., loading, unloading, transfer);
- Conditions that could lead to direct contact of storm water with significant materials;
- Piping, pumps, storage tanks and bins, pressure vessels, pressure release valves, process and material handling equipment, and material bulk storage areas for leaks, wind blowing, corrosion, support or foundation failure, or other deterioration or non-containment;
- Storm water management devices (oil/water separators, catch basins, or other structural or treatment management practices);
- Corroded drums, or drums without plugs;
- Corroded or leaking pipes;
- Leaking or improperly closed valves and valve fittings;
- Leaking pumps and/or hose connections;
- General good housekeeping conditions.

It is the responsibility of the individual assigned to ensure that the inspections are performed and that any problems uncovered during the inspections are corrected. Exhibit 3-3-5 should be used to record the areas or equipment that require any corrective action, along with the person who conducted the inspection, the inspection results, and the corrective action. The record of the inspections is to be kept as part of this SWPPP in Appendix E.

3.3.2.5 Employee Training

To meet the objectives of the SWPPP the employee training program requires that personnel at the north and south wastewater treatment plants be instructed as to their responsibilities relative to the SWPPP (Part IV.D.3.e). New personnel are to be trained within 30 days and all personnel are to receive training every year to refresh and update them on the components

and goals of the SWPPP. Topics are to include spill prevention and response, good housekeeping, and material management practices.

With respect to spill prevention and response procedures, the training program is to target all personnel involved in industrial activities, not just those on the spill response teams. It is required that all treatment plant personnel receive instruction in the prevention, control, containment, and cleanup of spills.

The training program includes the following:

- Identifying potential spill areas and drainage routes, including information on the causes of past spills;
- Reporting spills to appropriate individuals (employees are not penalized for reporting a spill);
- Specifying material handling procedures and storage requirements; and
- Implementing spill response procedures.

On-site contractors and temporary personnel are also informed of the plant operating procedures designed to help prevent accidental discharges or spills from occurring.

The following good housekeeping points are to be emphasized:

- Regular vacuuming and/or sweeping;
- Prompt cleanup of spilled materials to prevent contaminated runoff;
- Identification of places where brooms, vacuums, sorbents, foams, neutralizing agents, and other good housekeeping and spill response equipment are located;
- Posting of signs reminding personnel of the importance and procedures of good housekeeping;
- Instruction on securing drums and containers and checking for leaks and spills; and
- Regular scheduling of housekeeping activities.

The elements of the employee training program are to be documented in Exhibit 3-3-6 and maintained in the SWPPP.

3.3.2.6 Sediment and Erosion Control

The EPA General Permit requires that areas having a high potential for significant soil erosion be identified and stabilization measures proposed (Part IV.D.3.h). There are no areas of the north or south wastewater treatment plants that experience significant soil erosion. Areas of the facility that are not paved are vegetated with grass. The storm water runoff is conveyed by storm drains or by grassed channels. Any portion of a grassed channel that requires stabilization against erosion must be reseeded, using temporary stabilization measures such as straw with net; curled wood mat; jute, paper, or synthetic net; synthetic mat; or fiberglass roving, or sodded. Areas of ongoing erosion must be stabilized with riprap.

Development activity will also increase the potential for soil erosion. To minimize soil erosion and sedimentation from land disturbed by construction activity, a sediment control plan must be developed in accordance with local regulations. Additionally, construction activities greater than 5 acres must apply for and be in compliance with the NPDES general permit for storm water discharges from construction sites.

3.3.2.7 Management of Runoff

The measures and controls discussed in Sections 3.3.2.1 through 3.3.2.6 are designed to reduce pollutants at the source before they have the opportunity to contaminate storm water runoff. In this section, the appropriateness of storm water management practices that prevent pollutants in the runoff from leaving the site are considered.

Because the operation of the north and south wastewater treatment plants at Patrick AFB does not appear to adversely impact the quality of storm water runoff, no traditional storm water management practices are required or proposed at the time of the initial preparation of this SWPPP. Traditional storm water management practices are defined as those practices other than those which control the generation or source(s) of pollutants. These traditional storm water management practices include diversions, detention/retention/infiltration facilities, reuse, or treatment. However, if it is determined that storm water management practices are required, the viability of implementation of the management practices will require a cost study. When a management device is installed, it should be inspected as part of Section 3.3.2.4.

3.3.2.8 Management Controls Implementation

The management controls that have been identified in Sections 3.3.2.1 through 3.3.2.8 are summarized in Exhibit 3-3-7. The implementation schedule of these controls is presented in Exhibit 3-3-8. However, the primary purpose of these two exhibits is to document ongoing identification and implementation of controls throughout the term of the Group Permit.

3.3.3 Non-Storm Water Discharges

Non-storm water discharges to the waters of Florida, which are not authorized by an NPDES permit, are unlawful and must be terminated or appropriate NPDES permit application forms must be submitted. All discharges covered by the Group Permit are to be composed entirely of storm water; however, the following non-storm water discharges may be authorized (Part III.A.2.b):

- Fire fighting activities;
- Fire hydrant flushings;
- Potable water sources including waterline flushings;
- Irrigation drainage;
- Lawn watering;
- Routine external building washdown which does not use detergents or other compounds;
- Pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
- Air conditioning condensate;
- Springs;
- Uncontaminated ground water; and
- Foundations or footing drains where flow is not contaminated with process materials such as solvents.

The EPA General Permit requires that the SWPPP include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges [(Part IV.D.3.g(1)]. The certification must include the identification of potential significant sources of non-storm water at the site, a description of the results of any test and/or evaluation for the presence of non-storm water discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test. Except for flows from fire fighting activities, sources of non-storm water that combine with storm water discharges associated with industrial activity must be identified in the SWPPP [Part IV.D.3.g(2)].

The results of the assessment and certification of non-storm water discharge are to be recorded on Exhibit 3-3-9. If the certification is not feasible because the outfall is not accessible, Exhibit 3-3-10 must be completed, and the regulatory authority notified (Part VI.A).

3.3.4 Additional Requirements

The EPA General Permit imposes additional requirements for (1) storm water discharges associated with industrial activity through municipal storm sewer systems serving a population of 100,000 or more (Part IV.D.5), (2) storm water discharges associated with industrial activity from facilities subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313 [also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986] requirements (Part IV.D.7), and (3) salt storage (Part IV.D.8). There are no activities at Patrick AFB that result in these additional requirements being imposed.





**EXHIBIT 3-1-3
STORM WATER SAMPLING DATA
HAZARDOUS WASTE STORAGE**

Sampled by: _____
 Title: _____
 Sampling Station No. _____

Pollutant	Grab Sample Maximum Concentration (specify units)	Composite Sample Maximum Concentration (specify units)

Date of Storm Event	Duration of Storm Event (in hours)	Total rainfall during storm event (in inches)	Number of hours between beginning of storm measured and end of previous measurable rain event (in hours)	Total flow volume from rain event (gallons)



EXHIBIT 3-1-4
**POLLUTANT SOURCE IDENTIFICATION
 HAZARDOUS WASTE STORAGE FACILITY**

Complete by: _____
 Title: _____
 Date: _____

Instructions: List all identified storm water pollutant sources and describe existing management practices that address those sources. In the third column, list BMP options that can be incorporated into the plan to address remaining sources of pollutants.

Storm Water Pollutant Source	Existing Management Practices	Description of New BMP Options
1. Drums of hazardous waste exposed to rainfall	Diked area with valve and sump to contain spills	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		





EXHIBIT 3-1-6
EMPLOYEE TRAINING
HAZARDOUS WASTE STORAGE FACILITY

Completed by: _____
 Title: _____
 Date: _____

Instructions: Describe the employee training program for your facility below. the program should, at a minimum, address spill prevention and response, good housekeeping, and material management practices. Provide a schedule for the the training program and list the employees who attend training sessions.

Training Topics	Brief Description of Training Program/Materials (e.g., film, newsletter course)	Schedule for Training (list dates)	Attendees
Spill Prevention and Response			
Good Housekeeping			
Material Management Practices			
Other Topics			



EXHIBIT 3-1-7
 BMP IDENTIFICATION
 HAZARDOUS WASTE STORAGE FACILITY

Completed by: _____
 Title: _____
 Date: _____

Instructions: Describe the Best Management Practices that you have selected to include in your plan. For each of the baseline BMPs, describe actions that will be incorporated into facility operations. Also describe any additional BMPs that you have selected. Attach additional sheets if necessary.

BMPs	Brief Description of Activities
Good Housekeeping	Employee training, monthly inspections
Preventive Maintenance	Establish log sheet for monthly inspections
Inspections	Monthly
Spill Prevention Response	Compliance with Spill Prevention Control and Countermeasures (SPCC) Plan
Sediment and Erosion Control	Implement policy of vegetating non-paved areas
Management of Runoff	
Additional BMPs (Activity-specific and Site-specific)	



**EXHIBIT 3-1-8
IMPLEMENTATION
HAZARDOUS WASTE STORAGE FACILITY**

Completed by: _____
 Title: _____
 Date: _____

Instructions: Develop a schedule for implementing each BMP. Provide a brief description of each BMP, the steps necessary to implement the BMP (i.e., any construction or design), the schedule for completing those steps (list dates) and the person(s) responsible for implementation.

BMPs	Description of Action(s) Required for Implementation	Scheduled Completion Date(s) for Req'd Action	Person Responsible for Action	Notes
Good Housekeeping	1.			
	2.			
	3.			
Preventive Maintenance	1.			
	2.			
	3.			
Inspections	1.			
	2.			
	3.			
Spill Prevention and Response	1.			
	2.			
	3.			
Sediment and Erosion Control	1.			
	2.			
	3.			
Management of Runoff	1.			
	2.			
	3.			
Additional BMPs (Actively-specific and site-specific)	1.			
	2.			
	3.			



**EXHIBIT 3-1-9
NON-STORM WATER DISCHARGE
ASSESSMENT AND CERTIFICATION
HAZARDOUS WASTE STORAGE FACILITY**

Completed by: _____
 Title: _____
 Date: _____

Date of Test or Evaluation	Outfall Directly Observed During the Test (identify as indicated on the site map)	Method Used to Test or Evaluate Discharge	Describe Results from Test for the presence of Non-Storm Water Discharge	Identify Potential Significant Sources	Name of Person Who Conducted the Test or Evaluation

CERTIFICATION

I, _____ (responsible corporate official), certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official title (type or print) _____ B. Area Code and Telephone No. _____

C. Signature _____ D. Date Signed _____



EXHIBIT 3-1-10

NON-STORM WATER DISCHARGE ASSESSMENT AND
FAILURE TO CERTIFY NOTIFICATION
HAZARDOUS WASTE STORAGE FACILITY

Completed by: _____
Title: _____
Date: _____

Directions: If you cannot feasibly test or evaluate an outfall due to one of the following reasons, fill in the table below with the appropriate information and sign this form to certify the accuracy of the included information.

List all outfalls not tested or evaluated, describe any potential sources of non-storm water pollution from listed outfalls, and state the reason(s) why certification is not possible. use the key from your site map to identify each outfall.

Important Notice: A copy of this notification must be signed and submitted to the Director within 180 days of the effective date of this permit.

Identify Outfall Not Tested/Evaluated	Description of Why Certification Is Infeasible	Description of Potential Sources of Non-Storm Water Pollution

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction of supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations, and that such notification has been made to the Director within 180 days of _____ (date permit was issued), the effective date of this permit.

A. Name & Official Title (type or print)	B. Area Code and Telephone No.
C. Signature	D. Date Signed







EXHIBIT 3-2-3
STORM WATER SAMPLING DATA
FLIGHT LINE AND MAINTENANCE
HANGAR AREAS

Sampled by: _____
 Title: _____
 Sampling Station No. _____

Pollutant	Grab Sample Maximum Concentration (specify units)	Composite Sample Maximum Concentration (specify units)

Date of Storm Event	Duration of Storm Event (in hours)	Total rainfall during storm event (in inches)	Number of hours between beginning of storm measured and end of previous measurable rain event (in hours)	Total flow volume from rain event (gallons)



EXHIBIT 3-2-4
 POLLUTANT SOURCE IDENTIFICATION
 FLIGHT LINE AND MAINTENANCE HANGAR AREAS

Complete by: _____
 Title: _____
 Date: _____

Instructions: List all identified storm water pollutant sources and describe existing management practices that address those sources. In the third column, list BMP options that can be incorporated into the plan to address remaining sources of pollutants.

Storm Water Pollutant Source	Existing Management Practices	Description of New BMP Options
1. Refueling operations	Dry disconnect couplings	Employee Training
2. POL storage tanks	Secondary containment	Good Housekeeping, monthly inspections
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		





EXHIBIT 3-2-6
 EMPLOYEE TRAINING
 FLIGHT LINE AND MAINTENANCE HANGAR AREAS

Completed by: _____
 Title: _____
 Date: _____

Instructions: Describe the employee training program for your facility below. the program should, at a minimum, address spill prevention and response, good housekeeping, and material management practices. Provide a schedule for the the training program and list the employees who attend training sessions.

Training Topics	Brief Description of Training Program/Materials (e.g., film, newsletter course)	Schedule for Training (list dates)	Attendees
Spill Prevention and Response			
Good Housekeeping			
Material Management Practices			
Other Topics			



EXHIBIT 3-2-7
 BMP IDENTIFICATION
 FLIGHT LINE AND MAINTENANCE HANGAR AREAS

Completed by: _____
 Title: _____
 Date: _____

Instructions: Describe the Best Management Practices that you have selected to include in your plan. For each of the baseline BMPs, describe actions that will be incorporated into facility operations. Also describe any additional BMPs that you have selected. Attach additional sheets if necessary.

BMPs	Brief Description of Activities
Good Housekeeping	Employee training, monthly inspections
Preventive Maintenance	Establish log sheet for monthly inspections
Inspections	Monthly
Spill Prevention Response	Compliance with Spill Prevention Control and Countermeasures (SPCC) Plan
Sediment and Erosion Control	Implement policy of vegetating non-paved areas
Management of Runoff	
Additional BMPs (Activity-specific and Site-specific)	



**EXHIBIT 3-2-8
IMPLEMENTATION
FLIGHT LINE AND MAINTENANCE HANGAR AREAS**

Completed by: _____
 Title: _____
 Date: _____

Instructions: Develop a schedule for implementing each BMP. Provide a brief description of each BMP, the steps necessary to implement the BMP (i.e., any construction or design), the schedule for completing those steps (list dates) and the person(s) responsible for implementation.

BMPs	Description of Action(s) Required for Implementation	Scheduled Completion Date(s) for Req'd Action	Person Responsible for Action	Notes
Good Housekeeping	1.			
	2.			
	3.			
Preventive Maintenance	1.			
	2.			
	3.			
Inspections	1.			
	2.			
	3.			
Spill Prevention and Response	1.			
	2.			
	3.			
Sediment and Erosion Control	1.			
	2.			
	3.			
Management of Runoff	1.			
	2.			
	3.			
Additional BMPs (Actively-specific and site-specific)	1.			
	2.			
	3.			



**EXHIBIT 3-2-9
NON-STORM WATER DISCHARGE
ASSESSMENT AND CERTIFICATION
FLIGHT LINE AND MAINTENANCE HANGAR AREAS**

Completed by: _____
 Title: _____
 Date: _____

Date of Test or Evaluation	Outfall Directly Observed During the Test (identify as indicated on the site map)	Method Used to Test or Evaluate Discharge	Describe Results from Test for the presence of Non-Storm Water Discharge	Identify Potential Significant Sources	Name of Person Who Conducted the Test or Evaluation

CERTIFICATION

I, _____ (responsible corporate official), certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official title (type or print)

B. Area Code and Telephone No.

C. Signature

D. Date Signed



EXHIBIT 3-2-10

NON-STORM WATER DISCHARGE ASSESSMENT AND
FAILURE TO CERTIFY NOTIFICATION
FLIGHT LINE AND MAINTENANCE HANGAR AREAS

Completed by: _____
Title: _____
Date: _____

Directions: If you cannot feasibly test or evaluate an outfall due to one of the following reasons, fill in the table below with the appropriate information and sign this form to certify the accuracy of the included information.

List all outfalls not tested or evaluated, describe any potential sources of non-storm water pollution from listed outfalls, and state the reason(s) why certification is not possible. Use the key from your site map to identify each outfall.

Important Notice: A copy of this notification must be signed and submitted to the Director within 180 days of the effective date of this permit.

Identify Outfall Not Tested/Evaluated	Description of Why Certification Is Infeasible	Description of Potential Sources of Non-Storm Water Pollution

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction of supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations, and that such notification has been made to the Director within 180 days of _____ (date permit was issued), the effective date of this permit.

A. Name & Official Title (type or print)

B. Area Code and Telephone No.

C. Signature

D. Date Signed





EXHIBIT 3-3-3
 STORM WATER SAMPLING DATA
 NORTH AND SOUTH WASTEWATER
 TREATMENT PLANTS

Sampled by: _____
 Title: _____
 Sampling Station No. _____

Pollutant	Grab Sample Maximum Concentration (specify units)	Composite Sample Maximum Concentration (specify units)

Date of Storm Event	Duration of Storm Event (in hours)	Total rainfall during storm event (in inches)	Number of hours between beginning of storm measured and end of previous measurable rain event (in hours)	Total flow volume from rain event (gallons)

EXHIBIT 3-3-4
 POLLUTANT SOURCE IDENTIFICATION
 NORTH AND SOUTH WASTEWATER TREATMENT PLANTS

Complete by: _____
 Title: _____
 Date: _____

Instructions: List all identified storm water pollutant sources and describe existing management practices that address those sources. In the third column, list BMP options that can be incorporated into the plan to address remaining sources of pollutants.

Storm Water Pollutant Source	Existing Management Practices	Description of New BMP Options
1. Storage tanks	Secondary containment	Good housekeeping, monthly inspections
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

EXHIBIT 3-3-6
EMPLOYEE TRAINING
NORTH AND SOUTH WASTEWATER TREATMENT PLANTS

Completed by: _____
 Title: _____
 Date: _____

Instructions: Describe the employee training program for your facility below. the program should, at a minimum, address spill prevention and response, good housekeeping, and material management practices. Provide a schedule for the the training program and list the employees who attend training sessions.

Training Topics	Brief Description of Training Program/Materials (e.g., film, newsletter course)	Schedule for Training (list dates)	Attendees
Spill Prevention and Response			
Good Housekeeping			
Material Management Practices			
Other Topics			

EXHIBIT 3-3-7
BMP IDENTIFICATION
NORTH AND SOUTH WASTEWATER TREATMENT PLANTS

Completed by: _____
 Title: _____
 Date: _____

Instructions: Describe the Best Management Practices that you have selected to include in your plan. For each of the baseline BMPs, describe actions that will be incorporated into facility operations. Also describe any additional BMPs that you have selected. Attach additional sheets if necessary.

BMPs	Brief Description of Activities
Good Housekeeping	Employee training, monthly inspections
Preventive Maintenance	Establish log sheet for monthly inspections
Inspections	Monthly
Spill Prevention Response	Compliance with Spill Prevention Control and Countermeasures (SPCC) Plan
Sediment and Erosion Control	Implement policy of vegetating non-paved areas
Management of Runoff	
Additional BMPs (Activity-specific and Site-specific)	

**EXHIBIT 3-3-8
IMPLEMENTATION
NORTH AND SOUTH WASTEWATER TREATMENT PLANTS**

Completed by: _____
 Title: _____
 Date: _____

Instructions: Develop a schedule for implementing each BMP. Provide a brief description of each BMP, the steps necessary to implement the BMP (i.e., any construction or design), the schedule for completing those steps (list dates) and the person(s) responsible for implementation.

BMPs	Description of Action(s) Required for Implementation	Scheduled Completion Date(s) for Req'd Action	Person Responsible for Action	Notes
Good Housekeeping	1.			
	2.			
	3.			
Preventive Maintenance	1.			
	2.			
	3.			
Inspections	1.			
	2.			
	3.			
Spill Prevention and Response	1.			
	2.			
	3.			
Sediment and Erosion Control	1.			
	2.			
	3.			
Management of Runoff	1.			
	2.			
	3.			
Additional BMPs (Actively-specific and site-specific)	1.			
	2.			
	3.			

**EXHIBIT 3-3-9
NON-STORM WATER DISCHARGE
ASSESSMENT AND CERTIFICATION
NORTH AND SOUTH WASTEWATER TREATMENT**

Completed by: _____
 Title: _____
 Date: _____

Date of Test or Evaluation	Outfall Directly Observed During the Test (identity as indicated on the site map)	Method Used to Test or Evaluate Discharge	Describe Results from Test for the presence of Non-Storm Water Discharge	Identify Potential Significant Sources	Name of Person Who Conducted the Test or Evaluation

CERTIFICATION

I, _____ (responsible corporate official), certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official title (type or print) _____
 B. Area Code and Telephone No. _____

C. Signature _____
 D. Date Signed _____

EXHIBIT 3-3-10

NON-STORM WATER DISCHARGE ASSESSMENT AND
FAILURE TO CERTIFY NOTIFICATION
NORTH AND SOUTH WASTEWATER TREATMENT PLANTS

Completed by: _____
Title: _____
Date: _____

Directions: If you cannot feasibly test or evaluate an outfall due to one of the following reasons, fill in the table below with the appropriate information and sign this form to certify the accuracy of the included information.

List all outfalls not tested or evaluated, describe any potential sources of non-storm water pollution from listed outfalls, and state the reason(s) why certification is not possible. use the key from your site map to identify each outfall.

Important Notice: A copy of this notification must be signed and submitted to the Director within 180 days of the effective date of this permit.

Identify Outfall Not Tested/Evaluated	Description of Why Certification Is Infeasible	Description of Potential Sources of Non-Storm Water Pollution

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction of supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations, and that such notification has been made to the Director within 180 days of _____ (date permit was issued), the effective date of this permit.

A. Name & Official Title (type or print)

B. Area Code and Telephone No.

C. Signature

D. Date Signed

4. EVALUATION

4.1 COMPREHENSIVE SITE COMPLIANCE EVALUATION

The EPA General Permit requires that a comprehensive site compliance evaluation be conducted at a minimum of once a year (Part IV.D.4). This evaluation will be used to provide a basis for evaluating the overall effectiveness of this SWPPP (specifically, the pollution prevention measures and controls identified in Sections 3.2.1, 3.2.2, and 3.2.3) and as a verification of the accuracy of the SWPPP.

The areas contributing to a storm water discharge associated with industrial activity will be inspected for evidence of, or potential for, pollutants entering the drainage system. This evaluation will include the following:

- Assessment of good housekeeping practices;
- Areas identified for preventive maintenance;
- Equipment needed to implement the SWPPP, such as spill response equipment;
- Areas identified for routine inspection;
- Evaluation of the effectiveness of measures to reduce pollutant loadings and whether additional measures are needed; and
- Structural measures, sediment controls, and other storm water management practices to ensure proper operation.

Exhibit 4-1 is a checklist that was prepared to facilitate the evaluation and is to be completed during the compliance evaluation.

After the site compliance evaluation has been completed, a report summarizing inspection results, including the date of inspection and personnel who conducted the inspection, must be prepared. The report must document any incidents of noncompliance and required follow up actions or certify that the facility is in compliance with the SWPPP. This report must be signed and kept in Appendix D. A completed and signed Exhibit 4-1 will serve as the report. The SWPPP must be revised if needed within 2 weeks of the evaluation. Any necessary changes must be implemented within 12 weeks of the evaluation.

4.2 RECORDKEEPING AND INTERNAL REPORTING PROCEDURES

A description of spills and leaks, storm water sampling data, site compliance evaluation reports, and maintenance activities and inspections are to be documented and retained in Appendices B through E, respectively. All incidents that require an action or incidents of non-compliance are to be documented. These records are to be used to devise improvements in the management practices after they have been analyzed. It is the responsibility of the Pollution Prevention Team Leader to ensure that all incidents are reported and then followed up with the proper action. Records must be updated as appropriate (Part IV.D.3.f).

The SWPPP is to be retained on-site until at least one year after coverage under the General Group Permit terminates. Records of any storm water sampling data, copies of reports required by the EPA General Permit, and records of data used to complete the NOI, must be retained until at least one year after the Group Permit terminates. This period may be extended at the request of the regulatory authority at any time (Part VI.E.1). Although Patrick AFB is not presently subject to the monitoring requirements, should these requirements be imposed for any discharges, sample collection data shall be retained for six years or for the term of the Group Permit, whichever is greater (Part VI.E.2).

4.3 SWPPP REVISIONS

The EPA General Permit requires that the SWPPP be amended: (1) whenever there is a change in design, construction, operation, or maintenance, that has a significant effect on the potential for the discharge of pollutants to the waters of Florida, (2) if the SWPPP proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified in the SWPPP, or (3) is ineffective in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity (Part IV.C).

The regulatory authority may notify the Air Force at any time that the SWPPP does not meet one or more of the minimum requirements. Within 30 days of such notification, the Air Force must make the required changes to the SWPPP and submit to the regulatory authority a written certification that the requested changes have been made (Part IV.B.3).

When a hazardous substance is released in an amount equal to or in excess of a reporting quantity established under 40 CFR 117 or 40 CFR 302, within a 24-hour period, Part III.B.1.c of the EPA General Permit requires that the SWPPP be modified within 14 calendar days of knowledge of the release. The modification should provide a description of the release, the

circumstances leading to the release, and the date of the release. In addition, the SWPPP must be reviewed to identify measures to prevent the reoccurrence of such a release and the plan must be modified where appropriate.

When more than one anticipated discharge per year containing the same hazardous substance in an amount equal to or in excess of a reportable quantity established under either 40 CFR 117 or 40 CFR 302, occurs during a 24-hour period, Part III.B.2.b of the EPA General Permit requires that the SWPPP be modified.



**EXHIBIT 4-1
COMPREHENSIVE SITE COMPLIANCE
EVALUATION CHECKLIST**

Date of Evaluation: _____
Inspector: _____

	<u>No Action Required</u>	<u>Action Required</u>	<u>Not Applicable</u>
1. Accuracy of Site Map			
Drainage areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor storage areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Locations of significant spills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle maintenance and cleaning areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loading/unloading areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Processing and storage areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Direction of runoff flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Required Action: _____			

2. Accuracy of Exposed Materials Inventory			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Required Action: _____			

3. Accuracy of Significant Spills or Leaks Records			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Required Action: _____			

4. Accuracy of Identification Risk and Pollutants			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Required Action: _____			



EXHIBIT 4-1 (Continued)

	<u>No Action Required</u>	<u>Action Required</u>	<u>Not Applicable</u>
5. Accuracy of Storm Water Management Controls			
Good housekeeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preventive maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill prevention and response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspections and inspection records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee training and training records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-storm discharges-visual inspection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment and erosion areas-visual inspection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Required Action: _____

6. Accuracy of SWPPP and Related Records

Required Action: _____

Certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

"I certify that this facility is compliance with the SWPPP and the Permit."

Signature _____

Title _____

Date _____



REFERENCES

- 1040 CES/DEEV. 1991. Petroleum Products and Hazardous Waste Management Plan (OPLAN 19-14), Patrick Air Force Base, Florida. Draft.
- 45 CES/DEV. 1992. Oil and Hazardous Substance Pollution Contingency Plan (OPLAN 19-1), Patrick Air Force Base, Florida.
- EA Engineering, Science, and Technology. 1992. Storm Water Report, Patrick AFB, Contract No. F33615-89D-4002, Order 17. Prepared for United States Air Force, Occupational and Environmental Health Directorate, Armstrong Laboratory, Brooks AFB, Texas.
- Florida Department of Environmental Regulation. 1991. Hazardous Waste Operation Permit Number H005-185572. Patrick Air Force Base.
- Office of Management and Budget (OMB). 1987. Standard Industrial Classification Manual. Executive Office of the President, Office of Management and Budget.
- U.S. Environmental Protection Agency (EPA). 1992a. Letter from Ephraim King, Chief NPDES Program Branch Permits Division dated 18 March.
- U.S. Environmental Protection Agency (EPA). 1992b. Storm Water Management for Industrial Activities, Developing Pollution Prevention Plans and Best Management Practices. Report No. EPA-832-R-92-006. U.S. EPA, Washington, D.C. September.



Appendix 1(c)(1) EPA "Core" General Permit for Industrial Stormwater Discharges

[Editor's Note: The following permit is EPA's core general permit for industrial stormwater discharges. This model permit will be adopted and may be modified for each state, Indian tribe and federal facility for which EPA is the permitting authority. Modifications for these non-delegated states should be published in the Federal Register before Oct. 1, 1992. In addition, many NPDES states that have been delegated general permitting authority will use this permit as a model in developing state general permits.]

NPDES GENERAL PERMIT for STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY TABLE OF CONTENTS

PREFACE

Part I. COVERAGE UNDER THIS PERMIT

- A. Permit Area.
- B. Eligibility.
- C. Authorization.

Part II. NOTICE OF INTENT REQUIREMENTS

- A. Deadlines for Notification.
- B. Contents of Notice of Intent.
- C. Where to Submit.
- D. Additional Notification.
- E. Renotification.

Part III. SPECIAL CONDITIONS

- A. Prohibition on non-storm water discharges.
- B. Releases in excess of Reportable Quantities.

Part IV. STORM WATER POLLUTION PREVENTION PLANS

- A. Deadlines for Plan Preparation and Compliance.
- B. Signature and Plan Review.
- C. Keeping Plans Current.
- D. Contents of Plans.

Part V. NUMERIC EFFLUENT LIMITATIONS

- A. Coal Pile Runoff.

Part VI. MONITORING AND REPORTING REQUIREMENTS

- A. Failure to Certify.
- B. Monitoring Requirements.
- C. Toxicity Testing.
- D. Reporting: Where to Submit.
- E. Retention of Records.

Part VII. STANDARD PERMIT CONDITIONS

- A. Duty to Comply.
- B. Continuation of the Expired General Permit.
- C. Need to halt or reduce activity not a defense.
- D. Duty to Mitigate.
- E. Duty to Provide Information.
- F. Other Information.
- G. Signatory Requirements.
- H. Penalties for Falsification of Reports.
- I. Penalties for Falsification of Monitoring Systems.

- J. Oil and Hazardous Substance Liability.
- K. Property Rights.
- L. Severability.
- M. Requiring an individual permit or an alternative general permit.
- N. State/Environmental Laws.
- O. Proper Operation and Maintenance.
- P. Monitoring and Records.
- Q. Inspection and Entry.
- R. Permit Actions.

Part VIII. REOPENER CLAUSE

Part IX. NOTICE OF TERMINATION

- A. Notice of Termination.
- B. Addresses.

Part X. DEFINITIONS

Part XI. STATE SPECIFIC CONDITIONS

- A. Alaska.
- B. Arizona.
- C. Florida.
- D. Idaho.
- E. Louisiana.
- G. New Hampshire.
- H. New Mexico.
- J. Oklahoma.
- K. Texas.
- L. Puerto Rico.
- M. Guam.
- N. American Samoa.
- O. Colorado (Federal facilities and Indian lands).
- P. Washington (Federal facilities and Indian lands).
- Q. Delaware (Federal facilities).

ADDENDUM A - POLLUTANTS LISTED IN TABLES II AND III OF APPENDIX D OF 40 CFR 122

ADDENDUM B - SECTION 313 WATER PRIORITY CHEMICALS

ADDENDUM C - LARGE AND MEDIUM MUNICIPAL SEPARATE STORM SEWER SYSTEMS

PREFACE

The CWA provides that storm water discharges associated with industrial activity from a point source (including discharges through a municipal separate storm sewer system) to waters of the United States are unlawful, unless authorized by a National Pollutant Discharge Elimination System (NPDES) permit. The terms "storm water discharge associated with industrial activity", "point source" and "waters of the United States" are critical to determining whether a facility is subject to this requirement. Complete definitions of these terms are found in the definition section (Part X) of this permit. In order to determine the applicability of the requirement to a particular facility, the facility operator must examine its activities in relationship to the eleven categories of industrial facilities described in the definition of "storm water discharge associated with industrial activity".

Category (xi) of the definition, which address facilities with activities classified under Standard Industrial Classifications (SIC) codes 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 31 (except 311), 34 (except 3441), 35, 36, 37 (except 373), 38, 39, 4221-25, (and which are not otherwise included within categories (i)-(x)), differs from other categories listed in that it only addresses storm water discharges where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water.¹ [Editor's Note: Footnotes are located at page 636.]

The U.S. Environmental Protection Agency (EPA) has established the Storm Water Hotline at (703) 821-4823 to assist the Regional Offices in distributing notice of intent forms and storm water pollution prevention plan guidance, and to provide information pertaining to the NPDES storm water regulations.

Part I. COVERAGE UNDER THIS PERMIT

A. Permit Area.

The permit covers all areas of:
INSERT STATE NAME(S)

B. Eligibility.

1. This permit may cover all new and existing point source discharges of storm water associated with industrial activity to waters of the United States, except for storm water discharges identified under paragraph I.B.3.
2. This permit may authorize storm water discharges associated with industrial activity that are mixed with storm water discharges associated with industrial activity from construction activities provided that the storm water discharge from the construction activity is in compliance with the terms, including applicable notice of intent (NOI) or application requirements, of a different NPDES general permit or individual permit authorizing such discharges.
3. *Limitations on Coverage.* The following storm water discharges associated with industrial activity are not authorized by this permit:
 - a. storm water discharges associated with industrial activity that are mixed with sources of non-storm water other than non-storm water discharges that are:
 - (i) in compliance with a different NPDES permit; or
 - (ii) identified by and in compliance with Part III.A.2 (authorized non-storm water discharges) of this permit;
 - b. storm water discharges associated with industrial activity which are subject to an existing effluent limitation guideline addressing storm water (or a combination of storm water and process water)²;
 - c. storm water discharges associated with industrial activity that are subject to an existing NPDES individual or general permit; are located at a facility that where an NPDES permit has been terminated or denied; or which are issued in a permit in accordance with paragraph VII.M (requirements for individual or alternative general permits) of this permit. Such discharges may be authorized under this permit after an existing permit expires provided the existing permit did not establish numeric limitations for such discharges;

E. Renotification.

Upon issuance of a new general permit, the permittee is required to notify the Director of their intent to be covered by the new general permit.

Part III. SPECIAL CONDITIONS

A. Prohibition on non-storm water discharges.

1. Except as provided in paragraph III.A.2 (below), all discharges covered by this permit shall be composed entirely of storm water.
2. a. Except as provided in paragraph III.A.2.b (below), discharges of material other than storm water must be in compliance with a NPDES permit (other than this permit) issued for the discharge.
- b. The following non-storm water discharges may be authorized by this permit provided the non-storm water component of the discharge is in compliance with paragraph IV.D.3.g.(2) (measures and controls for non-storm water discharges): discharges from fire fighting activities; fire hydrant flushings; potable water sources including waterline flushings; irrigation drainage; lawn watering; routine external building washdown which does not use detergents or other compounds; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.

B. Releases in excess of Reportable Quantities.

1. The discharge of hazardous substances or oil in the storm water discharge(s) from a facility shall be prevented or minimized in accordance with the applicable storm water pollution prevention plan for the facility. This permit does not relieve the permittee of the reporting requirements of 40 CFR part 117 and 40 CFR part 302. Except as provided in paragraph III.B.2 (multiple anticipated discharges) of this permit, where a release containing a hazardous substance in an amount equal to or in excess of a reporting quantity established

under either 40 CFR 117 or 40 CFR 302, occurs during a 24 hour period:

- a. The discharger is required to notify the National Response Center (NRC) (800-424-8802; in the Washington, DC metropolitan area 202-426-2675) in accordance with the requirements of 40 CFR 117 and 40 CFR 302 as soon as he or she has knowledge of the discharge;
- b. The storm water pollution prevention plan required under Part IV (storm water pollution prevention plans) of this permit must be modified within 14 calendar days of knowledge of the release to: provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed by the permittee to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate; and
- c. The permittee shall submit within 14 calendar days of knowledge of the release a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, and steps to be taken in accordance with paragraph III.B.1.b (above) of this permit to the appropriate EPA Regional Office at the address provided in Part VI.D.1.d (reporting: where to submit) of this permit.

2. *Multiple Anticipated Discharges.* Facilities which have more than one anticipated discharge per year containing the same hazardous substance in an amount equal to or in excess of a reportable quantity established under either 40 CFR 117 or 40 CFR 302, which occurs during a 24 hour period, where the discharge is caused by events occurring within the scope of the relevant operating system shall:

- a. submit notifications in accordance with Part III.B.1.b (above) of this permit for the first such release that occurs during a calendar year (or for the first year of this permit, after submittal of an NOI); and

b. shall provide in the storm water pollution prevention plan required under Part IV (storm water pollution prevention plan) a written description of the dates on which all such releases occurred, the type and estimate of the amount of material released, and the circumstances leading to the release. In addition, the plan must be reviewed to identify measures to prevent or minimize such releases and the plan must be modified where appropriate.

3. *Spills.* This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

Part IV. STORM WATER POLLUTION PREVENTION PLANS

A storm water pollution prevention plan shall be developed for each facility covered by this permit. Storm water pollution prevention plans shall be prepared in accordance with good engineering practices and in accordance with the factors outlined in 40 CFR 125.3(d)(2) or (3) as appropriate. The plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. Facilities must implement the provisions of the storm water pollution prevention plan required under this part as a condition of this permit.

A. Deadlines for Plan Preparation and Compliance.

1. Except as provided in paragraphs IV.A.3 (oil and gas operations) 4 (facilities denied or rejected from participation in a group application) 5 (special requirements) and 6 (later dates) the plan for a storm water discharge associated with industrial activity that is existing on or before October 1, 1992:

a. shall be prepared on or before April 1, 1993 (and updated as appropriate);

b. shall provide for implementation and compliance with the terms of the plan on or before October 1, 1993;

2. a. The plan for any facility where industrial activity commences after October 1, 1992, but on or before December 31, 1992 shall be prepared, and except as provided elsewhere in this permit, shall provide for compliance with the terms of the plan and this permit on or before the date 60 calendar days after the commencement of industrial activity (and updated as appropriate);

b. The plan for any facility where industrial activity commences on or after January 1, 1993 shall be prepared, and except as provided elsewhere in this permit, shall provide for compliance with the terms of the plan and this permit, on or before the date of submission of a NOI to be covered under this permit (and updated as appropriate);

3. The plan for storm water discharges associated with industrial activity from an oil and gas exploration, production, processing, or treatment operation or transmission facility that is not required to submit a permit application on or before October 1, 1992 in accordance with 40 CFR 122.26(c)(1)(iii), but after October 1, 1992 has a discharge of a reportable quantity of oil or a hazardous substance for which notification is required pursuant to either 40 CFR 110.6, 40 CFR 117.21 or 40 CFR 302.6, shall be prepared and except as provided elsewhere in this permit, shall provide for compliance with the terms of the plan and this permit on or before the date 60 calendar days after the first knowledge of such release (and updated as appropriate);

4. The plan for storm water discharges associated with industrial activity from a facility that is owned or operated by a municipality that has participated in a timely group application where either the group application is rejected or the facility is denied participation in the group application by EPA;

a. shall be prepared on or before the 365th day following the date on which the group is rejected or the denial is made, (and updated as appropriate);

b. except as provided elsewhere in this permit, shall provide for compliance with the terms of the plan and this permit on or before the 545th day following the date on which the group is rejected or the denial is made; and

5. Portions of the plan addressing additional requirements for storm water discharges from facilities subject to Parts IV.D.7 (EPCRA Section 313) and IV.D.8 (salt storage) shall provide for compliance with the terms of the requirements identified in Parts IV.D.7 and IV.D.8 as expeditiously as practicable, but except as provided below, not later than either October 1, 1995. Facilities which are not required to report under EPCRA Section 313 prior to July 1, 1992, shall provide for compliance with the terms of the requirements identified in Parts IV.D.7 and IV.D.8 as expeditiously as practicable, but not later than three years after the date on which the facility is first required to report under EPCRA Section 313. However, plans for facilities subject to the additional requirements of Part IV.D.7 and IV.D.8, shall provide for compliance with the other terms and conditions of this permit in accordance with the appropriate dates provided in Part IV.1, 2, 3, or 5 of this permit.

6. Upon a showing of good cause, the Director may establish a later date in writing for preparing and compliance with a plan for a storm water discharge associated with industrial activity that submits a NOI in accordance with Part II.A.2 (deadlines for notification - new dischargers) of this permit (and updated as appropriate).

B. Signature and Plan Review.

1. The plan shall be signed in accordance with Part VII.G (signatory requirements), and be retained on-site at the facility which generates the storm water discharge in accordance with Part VI.E (retention of records) of this permit.

2. The permittee shall make plans available upon request to the Director, or authorized representative, or in the case of a storm water discharge associated with industrial activity which discharges through a municipal separate storm sewer system, to the operator of the municipal system.

3. The Director, or authorized representative, may notify the permittee at any time that the plan does not meet one or more of the minimum requirements of this Part. Such notification shall identify those provisions of the permit which are not being met by the plan, and identify which provisions of the plan requires modifications in order to meet the minimum requirements of this Part. Within 30 days of such notification from the Director, (or as otherwise provided by the Director), or authorized representative, the permittee shall make the required changes to the plan and shall submit to the Director a written certification that the requested changes have been made.

C. Keeping Plans Current.

The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the United States or if the storm water pollution prevention plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified under Part IV.D.2 (description of potential pollutant sources) of this permit, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Amendments to the plan may be reviewed by EPA in the same manner as Part IV.B (above).

D. Contents of Plan.

The plan shall include, at a minimum, the following items:

1. **Pollution Prevention Team.** Each plan shall identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team that are responsible for developing the storm water pollution prevention plan and assisting the facility or plant manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's storm water pollution prevention plan.

2. **Description of Potential Pollutant Sources.** Each plan shall provide a description of

potential sources which may reasonably be expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. Each plan shall identify all activities and significant materials which may potentially be significant pollutant sources. Each plan shall include, at a minimum:

a. Drainage.

- (1) A site map indicating an outline of the portions of the drainage area of each storm water outfall that are within the facility boundaries, each existing structural control measure to reduce pollutants in storm water runoff, surface water bodies, locations where significant materials are exposed to precipitation, locations where major spills or leaks identified under Part IV.D.2.c (spills and leaks) of this permit have occurred, and the locations of the following activities where such activities are exposed to precipitation: fueling stations, vehicle and equipment maintenance and/or cleaning areas, loading/unloading areas, locations used for the treatment, storage or disposal of wastes, liquid storage tanks, processing areas and storage areas.
- (2) For each area of the facility that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow, and an identification of the types of pollutants which are likely to be present in storm water discharges associated with industrial activity. Factors to consider include the toxicity of chemical; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. Flows with a significant potential for causing erosion shall be identified.

b. Inventory of Exposed Materials. An inventory of the types of materials handled at the site that potentially may be exposed to precipita-

tion. Such inventory shall include a narrative description of significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water between the time of three years prior to the date of the issuance of this permit and the present; method and location of on-site storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff between the time of three years prior to the date of the issuance of this permit and the present; the location and a description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

c. Spills and Leaks. A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility after the date of three years prior to the effective date of this permit. Such list shall be updated as appropriate during the term of the permit.

d. Sampling Data. A summary of existing discharge sampling data describing pollutants in storm water discharges from the facility, including a summary of sampling data collected during the term of this permit.

e. Risk Identification and Summary of Potential Pollutant Sources. A narrative description of the potential pollutant sources from the following activities: loading and unloading operations; outdoor storage activities; outdoor manufacturing or processing activities; significant dust or particulate generating processes; and on-site waste disposal practices. The description shall specifically list any significant potential source of pollutants at the site and for each potential source, any pollutant or pollutant parameter (e.g. biochemical oxygen demand, etc.) of concern shall be identified.

3. Measures and Controls. Each facility covered by this permit shall develop a description of storm water management controls appropriate for the facility, and implement

such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls:

- a. *Good Housekeeping.* Good housekeeping requires the maintenance of areas which may contribute pollutants to storm water discharges in a clean, orderly manner.
- b. *Preventive Maintenance.* A preventive maintenance program shall involve timely inspection and maintenance of storm water management devices (e.g. cleaning oil/water separators, catch basins) as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate maintenance of such equipment and systems.
- c. *Spill Prevention and Response Procedures.* Areas where potential spills which can contribute pollutants to storm water discharges can occur, and their accompanying drainage points shall be identified clearly in the storm water pollution prevention plan. Where appropriate, specifying material handling procedures, storage requirements, and use of equipment such as diversion valves in the plan should be considered. Procedures for cleaning up spills shall be identified in the plan and made available to the appropriate personnel. The necessary equipment to implement a clean up should be available to personnel.
- d. *Inspections.* In addition to or as part of the comprehensive site evaluation required under Part IV.4 of this permit, qualified facility personnel shall be identified to inspect designated equipment and areas of the facility at appropriate intervals specified in the plan. A set of tracking or followup procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections shall be maintained.
- e. *Employee Training.* Employee training programs shall inform personnel respon-

sible for implementing activities identified in the storm water pollution prevention plan or otherwise responsible for storm water management at all levels of responsibility of the components and goals of the storm water pollution prevention plan. Training should address topics such as spill response, good housekeeping and material management practices. A pollution prevention plan shall identify periodic dates for such training.

- f. *Recordkeeping and Internal Reporting Procedures.* A description of incidents such as spills, or other discharges, along with other information describing the quality and quantity of storm water discharges shall be included in the plan required under this part. Inspections and maintenance activities shall be documented and records of such activities shall be incorporated into the plan.
- g. *Non-Storm Water Discharges.*

- (1) The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges. The certification shall include the identification of potential significant sources of non-storm water at the site, a description of the results of any test and/or evaluation for the presence of non-storm water discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test. Certifications shall be signed in accordance with Part VII.G of this permit. Such certification may not be feasible if the facility operating the storm water discharge associated with industrial activity does not have access to an outfall, manhole, or other point of access to the ultimate conduit which receives the discharge. In such cases, the source identification section of the storm water pollution plan shall indicate why the certification required by this part was not feasible, along with the identification of potential significant sources of non-storm water at the site. A discharger that is unable to provide the certification required by this paragraph must notify

the Director in accordance with Part VI.A (failure to certify) of this permit.

- (2) Except for flows from fire fighting activities, sources of non-storm water listed in Part III.A.2 (authorized non-storm water discharges) of this permit that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.
 - h. *Sediment and Erosion Control.* The plan shall identify areas which, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion.
 - i. *Management of Runoff.* The plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (practices other than those which control the generation or source(s) of pollutants) used to divert, infiltrate, reuse, or otherwise manage storm water runoff in a manner that reduces pollutants in storm water discharges from the site. The plan shall provide that measures that the permittee determines to be reasonable and appropriate shall be implemented and maintained. The potential of various sources at the facility to contribute pollutants to storm water discharges associated with industrial activity (see Parts IV.D.2. (description of potential pollutant sources) of this permit) shall be considered when determining reasonable and appropriate measures. Appropriate measures may include: vegetative swales and practices, reuse of collected storm water (such as for a process or as an irrigation source), inlet controls (such as oil/water separators), snow management activities, infiltration devices, and wet detention/retention devices.
- 4. Comprehensive Site Compliance Evaluation.** Qualified personnel shall conduct site compliance evaluations at appropriate intervals specified in the plan, but, except as provided in paragraph IV.D.4.d (below), in no case less than once a year. Such evaluations shall provide:
- a. Areas contributing to a storm water discharge associated with industrial activity shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made.
 - b. Based on the results of the inspection, the description of potential pollutant sources identified in the plan in accordance with Part IV.D.2 (description of potential pollutant sources) of this permit and pollution prevention measures and controls identified in the plan in accordance with paragraph IV.D.3 (measures and controls) of this permit shall be revised as appropriate within two weeks of such inspection and shall provide for implementation of any changes to the plan in a timely manner, but in no case more than twelve weeks after the inspection.
 - c. A report summarizing the scope of the inspection, personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph IV.D.4.b (above) of the permit shall be made and retained as part of the storm water pollution prevention plan for at least one year after coverage under this permit terminates. The report shall identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report shall contain a certification that the facility is in compliance

with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with Part VII.G (signatory requirements) of this permit.

- d. Where annual site inspections are shown in the plan to be impractical for inactive mining sites due to the remote location and inaccessibility of the site, site inspections required under this part shall be conducted at appropriate intervals specified in the plan, but, in no case less than once in three years.

5. Additional requirements for storm water discharges associated with industrial activity through municipal separate storm sewer systems serving a population of 100,000 or more.

- a. In addition to the applicable requirements of this permit, facilities covered by this permit must comply with applicable requirements in municipal storm water management programs developed under NPDES permits issued for the discharge of the municipal separate storm sewer system that receives the facility's discharge, provided the discharger has been notified of such conditions.
- b. Permittees which discharge storm water associated with industrial activity through a municipal separate storm sewer system serving a population of 100,000 or more shall make plans available to the municipal operator of the system upon request.

6. Consistency with other plans. Storm water pollution prevention plans may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans developed for the facility under section 311 of the CWA or Best Management Practices (BMP) Programs otherwise required by an NPDES permit for the facility as long as such requirement is incorporated into the storm water pollution prevention plan.

7. Additional requirements for storm water discharges associated with industrial activity from facilities subject to EPCRA Section 313 requirements. In addition to the requirements of Parts IV.D.1 through 4 of this permit and other applicable conditions of this permit, storm water pollution prevention plans for

facilities subject to reporting requirements under EPCRA Section 313 for chemicals which are classified as 'Section 313 water priority chemicals' in accordance with the definition in Part X of this permit, shall describe and ensure the implementation of practices which are necessary to provide for conformance with the following guidelines:

- a. In areas where Section 313 water priority chemicals are stored, processed or otherwise handled, appropriate containment, drainage control and/or diversionary structures shall be provided. At a minimum, one of the following preventive systems or its equivalent shall be used:

- (1) Curbing, culverting, gutters, sewers or other forms of drainage control to prevent or minimize the potential for storm water run-on to come into contact with significant sources of pollutants; or
- (2) Roofs, covers or other forms of appropriate protection to prevent storage piles from exposure to storm water, and wind.

- b. In addition to the minimum standards listed under Part IV.D.7.a (above) of this permit, the storm water pollution prevention plan shall include a complete discussion of measures taken to conform with the following applicable guidelines, other effective storm water pollution prevention procedures, and applicable State rules, regulations and guidelines:

- (1) *Liquid storage areas where storm water comes into contact with any equipment, tank, container, or other vessel used for Section 313 water priority chemicals.*
 - (a) No tank or container shall be used for the storage of a Section 313 water priority chemical unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature, etc.
 - (b) Liquid storage areas for Section 313 water priority chemicals shall be operated to minimize discharges of

Section 313 chemicals. Appropriate measures to minimize discharges of Section 313 chemicals may include secondary containment provided for at least the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation, a strong spill contingency and integrity testing plan, and/or other equivalent measures.

- (2) *Material storage areas for Section 313 water priority chemicals other than liquids.* Material storage areas for Section 313 water priority chemicals other than liquids which are subject to runoff, leaching, or wind shall incorporate drainage or other control features which will minimize the discharge of Section 313 water priority chemicals by reducing storm water contact with Section 313 water priority chemicals.
- (3) *Truck and rail car loading and unloading areas for liquid Section 313 water priority chemicals.* Truck and rail car loading and unloading areas for liquid Section 313 water priority chemicals shall be operated to minimize discharges of Section 313 water priority chemicals. Protection such as overhangs or door skirts to enclose trailer ends at truck loading/unloading docks shall be provided as appropriate. Appropriate measures to minimize discharges of Section 313 chemicals may include: the placement and maintenance of drip pans (including the proper disposal of materials collected in the drip pans) where spillage may occur (such as hose connections, hose reels and filler nozzles) for use when making and breaking hose connections; a strong spill contingency and integrity testing plan; and/or other equivalent measures.
- (4) *Areas where Section 313 water priority chemicals are transferred, processed or otherwise handled.* Processing equipment and materials handling equipment shall be operated so as to minimize discharges of Section 313 water priority chemicals. Materials used in piping and equipment shall be compatible with the

substances handled. Drainage from process and materials handling areas shall minimize storm water contact with section 313 water priority chemicals. Additional protection such as covers or guards to prevent exposure to wind, spraying or releases from pressure relief vents from causing a discharge of Section 313 water priority chemicals to the drainage system shall be provided as appropriate. Visual inspections or leak tests shall be provided for overhead piping conveying Section 313 water priority chemicals without secondary containment.

- (5) *Discharges from areas covered by paragraphs (1), (2), (3) or (4).*
 - (a) Drainage from areas covered by paragraphs (1), (2), (3) or (4) of this part should be restrained by valves or other positive means to prevent the discharge of a spill or other excessive leakage of Section 313 water priority chemicals. Where containment units are employed, such units may be emptied by pumps or ejectors; however, these shall be manually activated.
 - (b) Flapper-type drain valves shall not be used to drain containment areas. Valves used for the drainage of containment areas should, as far as is practical, be of manual, open-and-closed design.
 - (c) If facility drainage is not engineered as above, the final discharge of all in-facility storm sewers shall be equipped to be equivalent with a diversion system that could, in the event of an uncontrolled spill of Section 313 water priority chemicals, return the spilled material to the facility.
 - (d) Records shall be kept of the frequency and estimated volume (in gallons) of discharges from containment areas.
 - (6) *Facility site runoff other than from areas covered by (1), (2), (3) or (4).* Other areas of the facility (those not addressed in paragraphs (1), (2), (3) or (4)), from which runoff which may contain Section 313 water priority chemicals or

spills of Section 313 water priority chemicals could cause a discharge shall incorporate the necessary drainage or other control features to prevent discharge of spilled or improperly disposed material and ensure the mitigation of pollutants in runoff or leachate.

- (7) *Preventive maintenance and housekeeping.* All areas of the facility shall be inspected at specific intervals identified in the plan for leaks or conditions that could lead to discharges of Section 313 water priority chemicals or direct contact of storm water with raw materials, intermediate materials, waste materials or products. In particular, facility piping, pumps, storage tanks and bins, pressure vessels, process and material handling equipment, and material bulk storage areas shall be examined for any conditions or failures which could cause a discharge. Inspection shall include examination for leaks, wind blowing, corrosion, support or foundation failure, or other forms of deterioration or noncontainment. Inspection intervals shall be specified in the plan and shall be based on design and operational experience. Different areas may require different inspection intervals. Where a leak or other condition is discovered which may result in significant releases of Section 313 water priority chemicals to waters of the United States, action to stop the leak or otherwise prevent the significant release of Section 313 water priority chemicals to waters of the United States shall be immediately taken or the unit or process shut down until such action can be taken. When a leak or noncontainment of a Section 313 water priority chemical has occurred, contaminated soil, debris, or other material must be promptly removed and disposed in accordance with Federal, State, and local requirements and as described in the plan.
- (8) *Facility security.* Facilities shall have the necessary security systems to prevent

accidental or intentional entry which could cause a discharge. Security systems described in the plan shall address fencing, lighting, vehicular traffic control, and securing of equipment and buildings.

- (9) *Training.* Facility employees and contractor personnel that work in areas where Section 313 water priority chemicals are used or stored shall be trained in and informed of preventive measures at the facility. Employee training shall be conducted at intervals specified in the plan, but not less than once per year, in matters of pollution control laws and regulations, and in the storm water pollution prevention plan and the particular features of the facility and its operation which are designed to minimize discharges of Section 313 water priority chemicals. The plan shall designate a person who is accountable for spill prevention at the facility and who will set up the necessary spill emergency procedures and reporting requirements so that spills and emergency releases of Section 313 water priority chemicals can be isolated and contained before a discharge of a Section 313 water priority chemical can occur. Contractor or temporary personnel shall be informed of facility operation and design features in order to prevent discharges or spills from occurring.
- (10) *Engineering Certification.* The storm water pollution prevention plan for a facility subject to EPCRA Section 313 requirements for chemicals which are classified as 'Section 313 water priority chemicals' shall be reviewed by a Registered Professional Engineer and certified to by such Professional Engineer. A Registered Professional Engineer shall recertify the plan every three years thereafter or as soon as practicable after significant modification are made to the facility. By means of these certifications the engineer, having examined the facility and being familiar with the provisions of this part, shall

attest that the storm water pollution prevention plan has been prepared in accordance with good engineering practices. Such certifications shall in no way relieve the owner or operator of a facility covered by the plan of their duty to prepare and fully implement such plan.

8. Additional Requirements for Salt Storage.

Storage piles of salt used for deicing or other commercial or industrial purposes and which generate a storm water discharge associated with industrial activity which is discharged to a waters of the United States shall be enclosed or covered to prevent exposure to precipitation, except for exposure resulting from adding or removing materials from the pile. Dischargers shall demonstrate compliance with this provision as expeditiously as practicable, but in no event later than October 1, 1995. Piles do not need to be enclosed or covered where storm water from the pile is not discharged to waters of the United States.

Part V. NUMERIC EFFLUENT LIMITATIONS

A. Coal Pile Runoff.

Any discharge composed of coal pile runoff shall not exceed a maximum concentration for any time of 50 mg/l total suspended solids. Coal pile runoff shall not be diluted with storm water or other flows in order to meet this limitation. The pH of such discharges shall be within the range of 6.0-9.0. Any untreated overflow from facilities designed, constructed and operated to treat the volume of coal pile runoff which is associated with a 10 year, 24 hour rainfall event shall not be subject to the 50 mg/l limitation for total suspended solids. Failure to demonstrate compliance with these limitations as expeditiously as practicable, but in no case later than October 1, 1995, will constitute a violation of this permit.

Part VI. MONITORING AND REPORTING REQUIREMENTS

A. Failure to Certify.

Any facility that is unable to provide the certification required under paragraph IV.D.3.g.(1) (testing for non-storm water discharges), must notify the Director by

October 1, 1993 or, for facilities which begin to discharge storm water associated with industrial activity after October 1, 1992, 180 days after submitting a NOI to be covered by this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water discharges to the storm sewer; and why adequate tests for such storm sewers were not feasible. Non-storm water discharges to waters of the United States which are not authorized by an NPDES permit are unlawful, and must be terminated or dischargers must submit appropriate NPDES permit application forms.

B. Monitoring Requirements.

1. Limitations on Monitoring Requirements.

- a. Except as required by paragraph b., only those facilities with activities specifically identified in Parts VI.B.2 (semi-annual monitoring requirements) and VI.B.3 (annual monitoring requirements) of this permit are required to conduct sampling of their storm water discharges associated with industrial activity.
- b. The Director can provide written notice to any facility otherwise exempt from the sampling requirements of Parts VI.B.2 (semi-annual monitoring requirements) or VI.B.3 (annual monitoring requirements), that it shall conduct the annual discharge sampling required by Part VI.B.3.d (additional facilities), or specify an alternative monitoring frequency or specify additional parameters to be analyzed.

2. Semi-Annual Monitoring Requirements.

During the period beginning on the effective date and lasting through the expiration date of this permit, permittees with facilities identified in Parts VI.B.2.a through f must monitor those storm water discharges identified below at least semi-annually (2 times per year) except as provided in VI.B.5 (sampling waiver), VI.B.6 (representative discharge), and VI.C.1 (toxicity testing). Permittees with facilities identified in Parts VI.B.2.a through f (below) must report in accordance with Part VI.D (reporting: where to

submit). In addition to the parameters listed below, the permittee shall provide the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event which generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and an estimate of the total volume (in gallons) of the discharge sampled;

a. *Section 313 of EPCRA Facilities.* In addition to any monitoring required by Parts VI.B.2.b through f. or Parts VI.B.3.a through d, facilities with storm water discharges associated with industrial activity that are subject to Section 313 of EPCRA for chemicals which are classified as 'Section 313 water priority chemicals' are required to monitor storm water that is discharged from the facility that comes into contact with any equipment, tank, container or other vessel or area used for storage of a Section 313 water priority chemical, or located at a truck or rail car loading or unloading area where a Section 313 water priority chemical is handled for: Oil and Grease (mg/L); Five Day Biochemical Oxygen Demand (BOD5) (mg/L); Chemical Oxygen Demand (COD) (mg/L); Total Suspended Solids (mg/L); Total Kjeldahl Nitrogen (TKN) (mg/L); Total Phosphorus (mg/L); pH; acute whole effluent toxicity; and any Section 313 water priority chemical for which the facility is subject to reporting requirements under section 313 of the Emergency Planning and Community Right to Know Act of 1986.

b. *Primary Metal Industries.* Facilities with storm water discharges associated with industrial activity classified as Standard Industrial Classification (SIC) 33 (Primary Metal Industry) are required to monitor such storm water that is discharged from the facility for: oil and grease (mg/L); chemical oxygen demand (COD) (mg/L); total suspended solids (mg/L); pH; acute whole effluent toxicity; total recoverable lead (mg/L); total recoverable cadmium (mg/L); total recoverable copper (mg/L); total recoverable arsenic (mg/L); total recoverable chromium (mg/L); and any pollutant

limited in an effluent guideline to which the facility is subject. Facilities that are classified as SIC 33 only because they manufacture pure silicon and/or semiconductor grade silicon are not required to monitor for total recoverable cadmium, total recoverable copper, total recoverable arsenic, total recoverable chromium or acute whole effluent toxicity, but must monitor for other parameters listed above.

c. *Land Disposal Units/Incinerators/BIFs.* Facilities with storm water discharges associated with industrial activity from any active or inactive landfill, land application sites or open dump without a stabilized final cover that has received any industrial wastes (other than wastes from a construction site); and incinerators (including Boilers and Industrial Furnaces (BIFs)) that burn hazardous waste and operate under interim status or a permit under Subtitle C of RCRA, are required to monitor such storm water that is discharged from the facility for: Magnesium (total recoverable) (mg/L), Magnesium (dissolved) (mg/L), Total Kjeldahl Nitrogen (TKN) (mg/L), Chemical Oxygen Demand (COD) (mg/L), Total Dissolved Solids (TDS) (mg/L), Total Organic Carbon (TOC) (mg/L), oil and grease (mg/L), pH, Total recoverable arsenic (mg/L), Total recoverable Barium (mg/L), Total recoverable Cadmium (mg/L), Total recoverable Chromium (mg/L), Total recoverable Cyanide (mg/L), Total recoverable Lead (mg/L), Total Mercury (mg/L), Total recoverable Selenium (mg/L), Total recoverable Silver (mg/L), and acute whole effluent toxicity.

d. *Wood Treatment.* Facilities with storm water discharges associated with industrial activity from areas that are used for wood treatment, wood surface application or storage of treated or surface protected wood at any wood preserving or wood surface facilities are required to monitor such storm water that is discharged from the facility for: oil and grease (mg/L), pH, COD (mg/L), and TSS (mg/L). In addition, facilities that use chlorophenolic formulations shall measure pentachlorophenol (mg/L) and acute whole effluent toxicity; facilities which use creosote formulations shall measure

acute whole effluent toxicity; and facilities that use chromium-arsenic formulations shall measure total recoverable arsenic (mg/L), total recoverable chromium (mg/L), and total recoverable copper (mg/L).

- e. *Coal Pile Runoff.* Facilities with storm water discharges associated with industrial activity from coal pile runoff are required to monitor such storm water that is discharged from the facility for: oil and grease (mg/L), pH, TSS (mg/L), total recoverable copper (mg/l), total recoverable nickel (mg/l) and total recoverable zinc (mg/l).
- f. *Battery Reclaimers.* Facilities with storm water discharges associated with industrial activity from areas used for storage of lead acid batteries, reclamation products, or waste products, and areas used for lead acid battery reclamation (including material handling activities) at facilities that reclaim lead acid batteries are required to monitor such storm water that is discharged from the facility for: Oil and Grease (mg/L); Chemical Oxygen Demand (COD) (mg/L); Total Suspended Solids (TSS) (mg/L); pH; total recoverable copper (mg/l); and total recoverable lead (mg/l).

3. *Annual Monitoring Requirements.* During the period beginning on the effective date and lasting through the expiration date of this permit, permittees with facilities identified in Parts VI.B.3.a through d. (below) must monitor those storm water discharges identified below at least annually (1 time per year) except as provided in VI.B.5 (sampling waiver), and VI.B.6 (representative discharge). Permittees with facilities identified in Parts VI.B.3.a through d. (below) are not required to submit monitoring results, unless required in writing by the Director. However, such permittees must retain monitoring results in accordance with Part VI.E (retention of records). In addition to the parameters listed below, the permittee shall provide the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event which generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event;

and an estimate of the total volume (in gallons) of the discharge sampled;

- a. *Airports.* At airports with over 50,000 flight operations per year, facilities with storm water discharges associated with industrial activity from areas where aircraft or airport deicing operations occur (including runways, taxiways, ramps, and dedicated aircraft deicing stations) are required to monitor such storm water that is discharged from the facility when deicing activities are occurring for: Oil and Grease (mg/L); Five Day Biochemical Oxygen Demand (BOD5) (mg/L); Chemical Oxygen Demand (COD) (mg/L); Total Suspended Solids (TSS) (mg/L); pH; and the primary ingredient used in the deicing materials used at the site (e.g. ethylene glycol, urea, etc.).
- b. *Coal-fired Steam Electric Facilities.* Facilities with storm water discharges associated with industrial activity from coal handling sites at coal fired steam electric power generating facilities (other than discharges in whole or in part from coal piles subject to storm water effluent guidelines at 40 CFR 423—which are not eligible for coverage under this permit) are required to monitor such storm water that is discharged from the facility for: Oil and grease (mg/L), pH, TSS (mg/L), total recoverable copper (mg/l), total recoverable nickel (mg/l) and total recoverable zinc (mg/l).
- c. *Animal Handling / Meat Packing.* Facilities with storm water discharges associated with industrial activity from animal handling areas, manure management (or storage) areas, and production waste management (or storage) areas that are exposed to precipitation at meat packing plants, poultry packing plants, and facilities that manufacture animal and marine fats and oils, are required to monitor such storm water that is discharged from the facility for: Five Day Biochemical Oxygen Demand (BOD5) (mg/L); oil and grease (mg/L); Total Suspended Solids (TSS) (mg/L); Total Kjeldahl Nitrogen (TKN) (mg/L); Total Phosphorus (mg/L); pH; and fecal coliform (counts per 100 mL).

d. *Additional Facilities.* Facilities with storm water discharges associated with industrial activity that:

- (i) come in contact with storage piles for solid chemicals used as raw materials that are exposed to precipitation at facilities classified as SIC 30 (Rubber and Miscellaneous Plastics Products) or SIC 28 (Chemicals and Allied Products);
- (ii) are from those areas at automobile junkyards with any of the following: (A) over 250 auto/truck bodies with drivelines (engine, transmission, axles, and wheels), 250 drivelines, or any combination thereof (in whole or in parts) are exposed to storm water; (B) over 500 auto/truck units (bodies with or without drivelines in whole or in parts) are stored exposed to storm water; or (C) over 100 units per year are dismantled and drainage or storage of automotive fluids occurs in areas exposed to storm water;
- (iii) come into contact with lime storage piles that are exposed to storm water at lime manufacturing facilities;
- (iv) are from oil handling sites at oil fired steam electric power generating facilities;
- (v) are from cement manufacturing facilities and cement kilns (other than discharges in whole or in part from material storage piles subject to storm water effluent guidelines at 40 CFR 411—which are not eligible for coverage under this permit);
- (vi) are from ready-mixed concrete facilities; or
- (vii) are from ship building and repairing facilities;

are required to monitor such storm water discharged from the facility for: Oil and Grease (mg/L); Chemical Oxygen Demand (COD) (mg/L); Total Suspended Solids (TSS) (mg/L); pH; and any pollutant limited in an effluent guideline to which the facility is subject.

4. *Sample Type.* For discharges from holding ponds or other impoundments with a retention period greater than 24 hours, (estimated by dividing the volume of the detention pond by the estimated volume of water discharged during the 24 hours previous to the time that the sample is collected) a minimum of one grab sample may be taken. For all other discharges, data shall be reported for both a grab sample and a composite sample. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. The grab sample shall be taken during the first thirty minutes of the discharge. If the collection of a grab sample during the first thirty minutes is impracticable, a grab sample can be taken during the first hour of the discharge, and the discharger shall submit with the monitoring report a description of why a grab sample during the first thirty minutes was impracticable. The composite sample shall either be flow-weighted or time-weighted. Composite samples may be taken with a continuous sampler or as a combination of a minimum of three sample aliquots taken in each hour of discharge for the entire discharge or for the first three hours of the discharge, with each aliquot being separated by a minimum period of fifteen minutes. Grab samples only must be collected and analyzed for the determination of pH, cyanide, whole effluent toxicity, fecal coliform, and oil and grease.

5. *Sampling Waiver.* When a discharger is unable to collect samples due to adverse climatic conditions, the discharger must submit in lieu of sampling data a description of why samples could not be collected, including available documentation of the event. Adverse weather conditions which may prohibit the collection of samples includes weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.). Dischargers are precluded from exercising this waiver more than once during a two year period.

6. *Representative Discharge.* When a facility has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may test the effluent of one of such outfalls and report that the quantitative data also applies to the substantially identical outfalls provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explaining in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area (e.g. low (under 40 percent), medium (40 to 65 percent) or high (above 65 percent)) shall be provided in the plan. Permittees required to submit monitoring information under Parts VI.D.1.a, b or c of this permit shall include the description of the location of the outfalls, explanation of why outfalls are expected to discharge substantially identical effluents, and estimate of the size of the drainage area and runoff coefficient with the Discharge Monitoring Report.

7. *Alternative Certification.* A discharger is not subject to the monitoring requirements of Parts VI.B.2 or 3 of this permit provided the discharger makes a certification for a given outfall, on an annual basis, under penalty of law, signed in accordance with Part VII.G (signatory requirements), that material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, industrial machinery or operations, significant materials from past industrial activity, or, in the case of airports, deicing activities, that are located in areas of the facility that are within the drainage area of the outfall are not presently exposed to storm water and will not be exposed to storm water for the certification period. Such certification must be retained in the storm water pollution prevention plan, and submitted to EPA in accordance with Part VI.D of this permit.

8. *Alternative to WET Parameter.* A discharger that is subject to the monitoring requirements of Parts VI.B.2.a through d may, in lieu of monitoring for acute whole effluent toxicity, monitor for pollutants identified in Tables II and III of Appendix D of 40 CFR 122 (see Addendum A of this permit) that the discharger knows or has reason to believe are present at the facility site. Such determinations are to be based on reasonable best efforts to identify significant quantities of materials or chemicals present at the facility. Dischargers must also monitor for any additional parameter identified in Parts VI.B.2.a through d.

C. Toxicity Testing.

Permittees that are required to monitor for acute whole effluent toxicity shall initiate the series of tests described below within 180 days after the issuance of this permit or within 90 days after the commencement of a new discharge.

1. Test Procedures.

- a. The permittee shall conduct acute 24 hour static toxicity tests on both an appropriate invertebrate and an appropriate fish (vertebrate) test species (EPA/600/4-90-027 Rev. 9/91, Section 6.1.)². Freshwater species must be used for discharges to freshwater water bodies. Due to the non-saline nature of rainwater, freshwater test species should also be used for discharges to estuarine, marine or other naturally saline waterbodies.
- b. All test organisms, procedures and quality assurance criteria used shall be in accordance with *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, EPA/600/4-90-027 (Rev. September 1991). EPA has proposed to establish regulations regarding these test methods (December 4, 1989, 53 FR 50216).
- c. Tests shall be conducted semiannually (twice per year) on a grab sample of the discharge. Tests shall be conducted using 100 effluent (no dilution) and a control consisting of synthetic dilution water. Results of all tests conducted with any species shall be reported according to EPA/

600/4-90-027 (Rev. September 1991), Section 12, Report Preparation, and the report submitted to EPA with the Discharge Monitoring Reports (DMR's). On the DMR, the permittee shall report "0" if there is no statistical difference between the control mortality and the effluent mortality for each dilution. If there is statistical difference (exhibits toxicity), the permittee shall report "1" on the DMR.

2. If acute whole effluent toxicity (statistically significant difference between the 100% dilution and the control) is detected on or after October 1, 1995, in storm water discharges, the permittee shall review the storm water pollution prevention plan and make appropriate modifications to assist in identifying the source(s) of toxicity and to reduce the toxicity of their storm water discharges. A summary of the review and the resulting modifications shall be provided in the plan.

D. Reporting: Where to Submit.

1. a. Permittees which are required to conduct sampling pursuant to Parts VI.B.2.(a) (EPCRA Section 313), and (d) (Wood Treatment facilities), shall monitor samples collected during the sampling periods running from January to June and during the sampling period from July to December. Such permittees shall submit monitoring results obtained during the reporting period running from January to December on Discharge Monitoring Report Form(s) postmarked no later than the 28th day of the following January. A separate Discharge Monitoring Report Form is required for each sampling period. The first report may include less than twelve months of information.
- b. Permittees which are required to conduct sampling pursuant to Parts VI.B.2.(b) (Primary Metal facilities), (e) (Coal Pile Runoff), and (f) (Battery Reclaimers) shall monitor samples collected during the sampling period running from March to August and during the sampling period running from September to February. Such permittees shall submit monitoring results obtained during the reporting period running from April to March on Discharge

Monitoring Report Form(s) postmarked no later than the 28th day of the following April. A separate Discharge Monitoring Report Form is required for each event sampling period. The first report may include less than twelve months of information.

- c. Permittees which are required to conduct sampling pursuant to Parts VI.B.2.(c) (Land disposal facilities), shall monitor samples collected during the sampling period running from October to March and during the sampling period running from April to September. Such permittees shall submit monitoring results obtained during the reporting period running from October to September on Discharge Monitoring Report Form(s) postmarked no later than the 28th day of October. A separate Discharge Monitoring Report Form is required for each sampling period. The first report may include less than twelve months of information.
- d. Signed copies of discharge monitoring reports required under Parts VI.D.1.a, VI.D.1.b, and VI.D.1.c, individual permit applications and all other reports required herein, shall be submitted to the Director of the NPDES program at the address of the appropriate Regional Office:
 - (i) *ME, NH*
United States EPA, Region I
Water Management Division, (WCP-2109)
Storm Water Staff
John F. Kennedy Federal Building,
Room 2209
Boston, MA 02203
 - (ii) *NY (Indian lands), Puerto Rico*
United States EPA, Region II
Water Management Division, (2WM-WPC)
Storm Water Staff
26 Federal Plaza
New York, NY 10278
 - (iii) *DE (Federal facilities)*
United States EPA, Region III
Water Management Division, (3WM55)

Storm Water Staff
841 Chestnut Building
Philadelphia, PA 19107

- (iv) AL (*Indian lands*), FL, GA (*Indian lands*), KY (*Indian lands*), MS (*Indian lands*), NC (*Indian lands*), SC (*Indian lands*), TN (*Indian lands*)

United States EPA, Region IV
Water Management Division, (FPB-3)
Storm Water Staff
345 Courtland Street, NE
Atlanta, GA 30365

- (v) MI (*Indian lands*), MN (*Indian lands*), WI (*Indian lands*)

United States EPA, Region V
Water Quality Branch (5WQP)
Storm Water Staff
77 West Jackson Boulevard
Chicago, IL 60604

- (vi) LA, NM (*except see Region IX for Navajo lands, and see Region VIII for Ute Mountain Reservation lands*), OK, TX

United States EPA, Region VI
Water Management Division, (6W-EA)
Storm Water Staff
First Interstate Bank Tower at Fountain Place
1445 Ross Avenue
12th Floor, Suite 1200
Dallas, TX 75202

- (vii) SD, CO (*Federal facilities and Indian lands*), ND (*Indian lands*), UT (*Indian lands (except see Region IX for Goshute Reservation and Navajo Reservation lands)*), WY (*Indian lands*), the Ute Mountain Reservation in CO and NM

United States EPA, Region VIII
Water Management Division
NPDES Branch (8WM-C)
Storm Water Staff
999 18th Street
Denver, CO 80202-2466

- (viii) Montana (*Indian Lands*)

United States EPA, Region VIII
Montana Operations Office
Federal Office Building
Drawer 10096

301 South Park
Helena, MT 59620-0026

- (ix) AZ, CA (*Indian lands*), NV (*Indian lands*), Guam, American Samoa, the Goshute Reservation in UT and NV, the Navajo Reservation in UT, NM, and AZ, the Duck Valley Reservation in NV and ID

United States EPA, Region IX
Water Management Division, (W-5-1)
Storm Water Staff
75 Hawthorne Street
San Francisco, CA 94105

- (x) AK, ID (*except see Region IX for Duck Valley Reservation lands*), WA (*Federal facilities and Indian lands*)

United States EPA, Region X
Water Management Division, (WD-134)
Storm Water Staff
1200 Sixth Street
Seattle, WA 98101

- e. Permittees with facilities identified in Parts VI.B.3 (annual monitoring) are not required to submit monitoring results, unless required in writing by the Director.

2. *Additional Notification.* In addition to filing copies of discharge monitoring reports in accordance with Part VI.D.1 (reporting: where to submit), facilities with at least one storm water discharge associated with industrial activity through a large or medium municipal separate storm sewer system (systems serving a population of 100,000 or more) must submit signed copies of discharge monitoring reports to the operator of the municipal separate storm sewer system in accordance with the dates provided in paragraph VI.D.1 (reporting: where to submit). Facilities not required to report monitoring data under Part VI.B.3 (annual monitoring requirements), and facilities that are not otherwise required to monitor their discharges, need not comply with this provision.

E. Retention of Records.

1. The permittee shall retain the pollution prevention plan developed in accordance with Part IV (storm water pollution prevention plans) of this permit until at least one year after coverage under this permit terminates. The

permittee shall retain all records of all monitoring information, copies of all reports required by this permit, and records of all data used to complete the Notice of Intent to be covered by this permit, until at least one year after coverage under this permit terminates. This period may be explicitly modified by alternative provisions of this permit (see paragraph VI.E.2 (below) of this permit) or extended by request of the Director at any time.

2. For discharges subject to sampling requirements pursuant to Part VI.B (monitoring requirements), in addition to the requirements of paragraph VI.E.1 (above), permittees are required to retain for a six year period from the data of sample collection or for the term of this permit, whichever is greater, records of all monitoring information collected during the term of this permit. Permittees must submit such monitoring results to the Director upon the requests of the Director, and submit a summary of such result as part of renotification requirements in accordance with Part II.F (renotification).

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply.

1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of CWA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

2. Penalties for Violations of Permit Conditions.

a. Criminal

(1) *Negligent Violations.* The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

(2) *Knowing Violations.* The CWA provides that any person who knowingly violates permit conditions implement-

ing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both.

(3) *Knowing Endangerment.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than \$250,000, or by imprisonment for not more than 15 year, or both.

(4) *False Statement.* The CWA provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than 2 years, or by both. If a conviction is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or by both. (See Section 309(c)(4) of the Clean Water Act).

b. *Civil Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed \$25,000 per day for each violation.

c. *Administrative Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

- (1) *Class I penalty.* Not to exceed \$10,000 per violation nor shall the maximum amount exceed \$25,000.
- (2) *Class II penalty.* Not to exceed \$10,000 per day for each day during which the violation continues nor shall the maximum amount exceed \$125,000.

B. Continuation of the Expired General Permit.

This permit expires on October 1, 1997. However, an expired general permit continues in force and effect until a new general permit is issued. Permittees must submit a new NOI in accordance with the requirements of Part II of this permit, using a NOI form provided by the Director (or photocopy thereof) between August 1, 1997 and September 29, 1997 to remain covered under the continued permit after October 1, 1997. Facilities that had not obtained coverage under the permit by October 1, 1997 cannot become authorized to discharge under the continued permit.

C. Need to halt or reduce activity not a defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Duty to Provide Information.

The permittee shall furnish to the Director, within a time specified by the Director, any information which the Director may request to determine compliance with this permit. The permittee shall also furnish to the Director upon request copies of records required to be kept by this permit.

F. Other Information.

When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the Director,

he or she shall promptly submit such facts or information.

G. Signatory Requirements.

All Notices of Intent, Notices of Termination, storm water pollution prevention plans, reports, certifications or information either submitted to the Director (and/or the operator of a large or medium municipal separate storm sewer system), or that this permit requires be maintained by the permittee, shall be signed.

1. All Notices of Intent shall be signed as follows:

- a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (2) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25,000,000 (in second-quarter 1980 dollars) if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
- b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- c. For a municipality: State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).

2. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- a. The authorization is made in writing by a person described above and submitted to the Director.
- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
- c. *Changes to authorization.* If an authorization under paragraph VII.G.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new notice of intent satisfying the requirements of paragraph II.C must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.
- d. *Certification.* Any person signing documents under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

H. Penalties for Falsification of Reports

Section 309(c)(4) of the Clean Water Act provides that any person who knowingly makes any false material statement, representation, or certification in any record or other

document submitted or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both.

I. Penalties for Falsification of Monitoring Systems.

The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by fines and imprisonment described in Section 309 of the CWA.

J. Oil and Hazardous Substance Liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the CWA or section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

K. Property Rights.

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

L. Severability.

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

M. Requiring an individual permit or an alternative general permit.

1. The Director may require any person authorized by this permit to apply for and/or obtain either an individual NPDES permit or an alternative NPDES general permit. Any interested person may petition the Director to take action under this paragraph. The Director

may require any owner or operator authorized to discharge under this permit to apply for an individual NPDES permit only if the owner or operator has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the owner or operator to file the application, and a statement that on the effective date of issuance or denial of the individual NPDES permit or the alternative general permit as it applies to the individual permittee, coverage under this general permit shall automatically terminate. Individual permit applications shall be submitted to the address of the appropriate Regional Office shown in Part VI.D.1.d (reporting: where to submit) of this permit. The Director may grant additional time to submit the application upon request of the applicant. If an owner or operator fails to submit in a timely manner an individual NPDES permit application as required by the Director, then the applicability of this permit to the individual NPDES permittee is automatically terminated at the end of the day specified for application submittal.

2. Any owner or operator authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual permit. The owner or operator shall submit an individual application (Form 1 and Form 2F) with reasons supporting the request to the Director. Individual permit applications shall be submitted to the address of the appropriate Regional Office shown in Part VI.D.1.c. of this permit. The request may be granted by the issuance of any individual permit or an alternative general permit if the reasons cited by the owner or operator are adequate to support the request.

3. When an individual NPDES permit is issued to an owner or operator otherwise subject to this permit, or the owner or operator is authorized for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to an

owner or operator otherwise subject to this permit, or the owner or operator is denied for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the date of such denial, unless otherwise specified by the Director.

N. State/Environmental Laws.

1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by section 510 of the Act.

2. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

O. Proper Operation and Maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of storm water pollution prevention plans. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

P. Monitoring and Records.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. The permittee shall retain records of all monitoring information including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of the reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 6 years from the date of the sample, measurement, report or

application. This period may be extended by request of the Director at any time.

3. *Records Contents.* Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
 - b. The initials or name(s) of the individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The time(s) analyses were initiated;
 - e. The initials or name(s) of the individual(s) who performed the analyses;
 - f. References and written procedures, when available, for the analytical techniques or methods used; and
 - g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.
4. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

Q. *Inspection and Entry.*

The permittee shall allow the Director or an authorized representative of EPA, the State, or, in the case of a facility which discharges through a municipal separate storm sewer, an authorized representative of the municipal operator or the separate storm sewer receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment).

R. *Permit Actions.*

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

S. *Bypass of Treatment Facility.*

1. *Notice:*

- a. *Anticipated bypass.* If a permittee subject to the numeric effluent limitation of Part V.A of this permit knows in advance of the need for a bypass, he or she shall submit prior notice, if possible, at least ten days before the date of the bypass; including an evaluation of the anticipated quality and effect of the pass.
- b. *Unanticipated bypass.* The permittee subject to the numeric effluent limitation of Part V.A of this permit shall submit notice of an unanticipated bypass. Any information regarding the unanticipated bypass shall be provided orally within 24 hours from the time the permittee became aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee became aware of the circumstances. The written submission shall contain a description of the bypass and its cause; the period of the bypass; including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

2. *Prohibition of bypass:*

- a. Bypass is prohibited and the Director may take enforcement action against a permittee for a bypass. Unless:
 - (1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary facilities, retention of untreated wastes, or maintenance during normal periods

of equipment downtime. This condition is not satisfied if the permittee should, in the exercise of reasonable engineering judgement, have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

- (3) The permittee submitted notices of the bypass.
- b. The Director may approve an anticipated bypass after considering its adverse effects, if the Director determines that it will meet the three conditions listed in Part VII.S.2.a.

T. Upset Conditions.

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based numeric effluent limitations in Part V.A of this permit if the requirements of paragraph 2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, if final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of an upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence, that:

- a. An upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b. The permitted facility was at the time being properly operated; and
- c. The permittee provided oral notice of the upset to EPA within 24 hours from the time the permittee became aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee became aware of the circumstances. The written submission shall contain a description of the upset and its cause; the period of the upset; including exact dates and times, and if the upset has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the upset.

3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

Part VIII. REOPENER CLAUSE

A. If there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with industrial activity covered by this permit, the owner or operator of such discharge may be required to obtain individual permit or an alternative general permit in accordance with Part VII.M (requiring an individual permit or alternative general permit) of this permit or the permit may be modified to include different limitations and/or requirements.

B. Permit modification or revocation will be conducted according to 40 CFR 122.62, 122.63, 122.64 and 124.5.

Part IX. TERMINATION OF COVERAGE

A. Notice of Termination.

Where all storm water discharges associated with industrial activity that are authorized by this permit are eliminated, or where the operator of storm water discharges associated with industrial activity at a facility changes, the operator of the facility may submit a Notice of Termination that is signed in accordance with Part VII.G (signatory requirements) of this permit. The Notice of Termination shall include the following information:

1. Name, mailing address, and location of the facility for which the notification is submitted. Where a street address for the site is not available, the location of the approximate center of the site must be described in terms of the latitude and longitude to the nearest 15 seconds, or the section, township and range to the nearest quarter;
2. The name, address and telephone number of the operator addressed by the Notice of Termination;
3. The NPDES permit number for the storm water discharge associated with industrial activity identified by the Notice of Termination;
4. An indication of whether the storm water discharges associated with industrial activity

have been eliminated or the operator of the discharges has changed; and

5. The following certification signed in accordance with Part VII.G (signatory requirements) of this permit:

"I certify under penalty of law that all storm water discharges associated with industrial activity from the identified facility that are authorized by a NPDES general permit have been eliminated or that I am no longer the operator of the industrial activity. I understand that by submitting this notice of termination, that I am no longer authorized to discharge storm water associated with industrial activity under this general permit, and that discharging pollutants in storm water associated with industrial activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act."

B. Addresses.

All Notices of Termination are to be sent, using the form provided by the Director (or a photocopy thereof)⁴, to the Director of the NPDES program in care of the following address:

Storm Water Notice of Termination
PO Box 1185
Newington, VA 22122

Part X. DEFINITIONS

"Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

"Coal pile runoff" means the rainfall runoff from or through any coal storage pile

"CWA" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972).

"Director" means the Regional Administrator or an authorized representative.

"Flow-weighted composite sample" means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

"Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.

"Land application unit" means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

"Large and medium municipal separate storm sewer system" means all municipal separate storm sewers that are either:

- (i) located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and G of 40 CFR Part 122); or
- (ii) located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties (these counties are listed in Appendices H and I of 40 CFR Part 122); or
- (iii) owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system.

"NOI" means notice of intent to be covered by this permit (see Part II of this permit.)

"NOT" means notice of termination (see Part II of this permit.)

"Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Section 313 water priority chemical" means a chemical or chemical categories which are: 1) are listed at 40 CFR 372.65 pursuant to Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986); 2) are present at or above threshold levels at a facility subject to EPCRA Section 313 reporting requirements; and 3) that meet at least one of the following criteria: (i) are listed in Appendix D of 40 CFR 122 on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols) or Table V (certain toxic pollutants and hazardous substances); (ii) are listed as a hazardous substance pursuant to section 311(b)(2)(A) of the CWA at 40 CFR 116.4; or (iii) are pollutants for which EPA has published acute or chronic water quality criteria. See Addendum B of this permit.

"Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to EPCRA Section 313; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

"Significant spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under section 311 of the Clean Water Act (see 40 CFR 110.10 and CFR 117.21) or section 102 of CERCLA (see 40 CFR 302.4).

"Storm Water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

"Storm water associated with industrial activity" means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program. For the categories of industries identified in paragraphs (i) through (x) of this definition, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the categories of industries identified in paragraph (xi) of this definition, the term includes only storm water discharges from all areas (except access roads and rail lines) listed in the previous sentence where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water. For the purposes of this paragraph, material handling activities include the: storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial

facilities that are Federally, State or municipally owned or operated that meet the description of the facilities listed in this paragraph (i)-(xi) of this definition) include those facilities designated under 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in "industrial activity" for purposes of this subsection:

- (i) Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR subchapter N (except facilities with toxic pollutant effluent standards which are exempted under category (xi) of this definition);
- (ii) Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373;
- (iii) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11(l) because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator;
- (iv) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA;
- (v) Landfills, land application sites, and open dumps that have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under Subtitle D of RCRA;
- (vi) Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;
- (vii) Steam electric power generating facilities, including coal handling sites;
- (viii) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-25), 43, 44, 45 and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs (i)-(vii) or (ix)-(xi) of this subsection are associated with industrial activity;
- (ix) Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the

confines of the facility, or areas that are in compliance with 40 CFR 503;

- (x) Construction activity including clearing, grading and excavation activities except: operations that result in the disturbance of less than five acres of total land area which are not part of a larger common plan of development or sale;
- (xi) Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, 4221-25, (and which are not otherwise included within categories (i)-(x))⁵.

"Time-weighted composite" means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with the numeric effluent limitations of Part V of this permit because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"Waste pile" means any noncontainerized accumulation of solid, nonflowing waste that is used for treatment or storage.

"Waters of the United States" means:

- (a) All waters which are currentified in paragraphs (a) through (f) of this definition.
- (b) All interstate waters, including interstate "wetlands";
- (c) All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

- (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;

- (2) Which are used or could be used for industrial purposes by industries in interstate commerce;

- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;

- (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;

- (f) The territorial sea; and

- (g) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA are not waters of the United States.

Part X. STATE SPECIFIC CONDITIONS

The provisions of this Part provide modifications or additions to the applicable conditions of Parts I through IX of this permit. Part X of this permit does not establish special provisions for the States of Maine, New Hampshire, South Dakota, Johnson Atoll, Midway, Wake Island, New Mexico (Indian lands), Montana (Indian lands), North Dakota (Indian lands), Utah (Indian lands), Wyoming (Indian lands).

[Editor's Note: These provisions should be published in the Federal Register by Oct. 1, 1992. The state pages in Tab 800 will be revised to reflect these provisions.]

A. Alaska.

Permittees located in the State of Alaska must comply with the following provisions:

1. The following language shall operate in lieu of the provisions of part of this permit:...

- a.

2. In addition to the requirements of part of this permit, permittees shall...

- a.

- B. Arizona
- C. Florida
- D. Idaho
- E. Louisiana
- G. New Hampshire
- H. New Mexico
- J. Oklahoma
- K. Texas
- L. Puerto Rico
- M. Guam
- N. American Samoa
- O. Colorado (Federal facilities and Indian lands).

There are no special conditions in this part for Indian lands in Colorado. The following language shall operate in lieu of the provisions of part of this permit for discharges on Federal lands:

P. Washington (Federal facilities and Indian lands)

Q. Delaware (Federal facilities)

[Editor's Notes: The following two items, identified as footnote 2 and 3, modify state-specific provisions that have not yet been published.]

² Discharges located in Louisiana, New Mexico, Oklahoma, and Texas, must test for *Daphnia pulex*, and the fathead minnow (*Pimephales promelas*) utilizing freshwater methods for all storm water discharges. A *Daphnidae* species, and the fathead minnow (*Pimephales promelas*) are recommended for discharges in other States.

³ In order to provide consistency with other permits written in Region VIII, the permits for discharges in CO, WY, MT, ND, SD and UT would substitute the following language for Part VI.C.I:

"The permittee shall conduct an acute 48-hour static replacement toxicity test using *Ceriodaphnia* sp. and an acute 96-hour static replacement toxicity test using fathead minnows. The replacement static toxicity tests shall

be conducted in general accordance with the procedures set out in the latest revision of "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms" EPA/600/4-90-027 (Revision September 1991) and the "Region VIII EPA NPDES Acute Test Conditions - Static Renewal Whole Effluent Toxicity Test". Tests shall be conducted semiannually. Tests shall be conducted using 100 percent effluent (no dilution) and a control consisting of synthetic dilution water. After four (4) sets of tests of two (2) species, the permittee may limit subsequent testing to the most sensitive of the two (2) species, based on the results of the previous tests. Results of all tests shall be reported in a format consistent with the latest revision of the "Region VIII Guidance for Acute Whole Effluent Reporting", and shall include all chemical and physical data as specified."

ADDENDUM A

Pollutants identified in Tables II and III of Appendix D of 40 CFR 122

ADDENDUM B

Section 313 Water Priority Chemicals

CAS Number	Common Name		
75-07-0	Acetaldehyde	74-83-9	Bromomethane (Methyl bromide)
75865	Acetane cynohydrin	85-68-7	Butyl benzyl phthalate
107-02-8	Acrolein	7440-43-9	Cadmium
107-13-1	Acrylonitrile	543908	Cadmium acetate
309-00-2	Aldrin[1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1.alpha.,4.alpha.,4a.beta.,5.alpha.,8.alpha.,8a.b eta.)-]	7789426	Cadmium bromide
		10108642	Cadmium chloride
		7778441	Calcium arsenate
		52740166	Calcium arsenite
		13765190	Calcium chromate
		592018	Calcium cyanide
		133-06-2	Captan [1H-Isoindole-1,3(2H)-dione,3a,4,7,7a-tetrahydro-2-[(trichloromethyl)thio]-]
		63-25-2	Carbaryl [1-Naphthalenol, methylcarbamate]
		75-15-0	Carbon disulfide
		56-23-5	Carbon tetrachloride
		57-74-9	Chlordane [4,7-Methanoindan,1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-]
107-05-1	Allyl Chloride		Chlorine
7429-90-5	Aluminum (fume or dust)		Chloro-4-methyl-3-phenol
7664-41-7	Ammonia	7782-50-5	<i>p</i> -Chloro- <i>m</i> -cresol
62-53-3	Aniline	59-50-7	Chlorobenzene
120-12-7	Anthracene		Chloroethane (Ethyl chloride)
7440-36-0	Antimony		Chloroform
7647189	Antimony pentachloride	108-90-7	Chloromethane (Methyl chloride)
28300745	Antimony potassium tartrate	75-00-3	2-Chlorophenol
7789619	Antimony tribromide	67-66-3	4-Chlorophenol
10025919	Antimony trichloride	74-87-3	Chromic acetate
7783564	Antimony trifluoride		Chromic acid
1309644	Antimony trioxide	95-57-8	Chromic sulfate
7440-38-2	Arsenic	106-48-9	Chromium
1303328	Arsenic disulfide	1066304	Chromium (Tri)
1303282	Arsenic pentoxide	11115745	Chromous chloride
7784341	Arsenic trichloride	10101538	Cobaltous bromide
1327533	Arsenic trioxide	7440-47-3	Cobaltous formate
1303339	Arsenic trisulfide	1308-14-1	Cobaltous sulfamate
1332-21-4	Asbestos (friable)	10049055	Copper
542621	Barium cyanide	7789437	<i>m</i> -Cresol
71-43-2	Benzene	544183	<i>o</i> -Cresol
92-87-5	Benzidine	14017415	<i>p</i> -Cresol
100470	Benzonitrile	7440-50-8	Cresol (mixed isomers)
98-88-4	Benzoyl chloride	108-39-4	Cupric acetate
100-44-7	Benzyl chloride	9548-7	Cupric acetoarsenite
7440-41-7	Beryllium	106-44-5	Cupric chloride
7787475	Beryllium chloride	1319-77-3	Cupric nitrate
7787497	Beryllium fluoride	142712	Cupric oxalate
7787555	Beryllium nitrate	12002038	
111-44-4	Bis(2-chloroethyl) ether	7447394	
75-25-2	Bromoform	3251238	
		5893663	

7758987	Cupric sulfate	77-47-4	Hexachlorocyclopentadiene
10380297	Cupric sulfate, ammoniated	67-72-1	Hexachloroethane
815827	Cupric tartrate	7647-01-0	Hydrochloric acid
57-12-5	Cyanide	74-90-8	Hydrogen cyanide
506774	Cyanogen chloride	7664-39-3	Hydrogen fluoride
110-82-7	Cyclohexane	7439-92-1	Lead
94-75-7	2,4-D [Acetic acid, (2,4-dichlorophenoxy)-]	301042	Lead acetate
106-93-4	1,2-Dibromoethane (Ethylene dibromide)	7784409	Lead arsenate
84-74-2	Dibutyl phthalate	7645252	" "
25321-22-6	Dichlorobenzene (mixed isomers)	10102484	" "
95-50-1	1,2-Dichlorobenzene	7758954	Lead chloride
541-73-1	1,3-Dichlorobenzene	13814965	Lead fluoborate
106-46-7	1,4-Dichlorobenzene	7783462	Lead fluoride
91-94-1	3,3'-Dichlorobenzidine	10101630	Lead iodide
75-27-4	Dichlorobromomethane	10099748	Lead nitrate
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	7428480	Lead stearate
540-59-0	1,2-Dichloroethylene	1072351	" "
120-83-2	2,4-Dichlorophenol	52652592	" "
78-87-5	1,2-Dichloropropane	7446142	Lead sulfate
542-75-6	1,3-Dichloropropylene	1314870	Lead sulfide
62-73-7	Dichlorvos [Phosphoric acid, 2,2-dichloroethenyl dimethyl ester]	592870	Lead thiocyanate
115-32-2	Dicofol [Benzenemethanol, 4-chloro-.alpha.-(4-chlorophenyl)-.alpha.-(trichloromethyl)-]	58-89-9	Lindane [Cyclohexane, 1,2,3,4,5,6-hexachloro-(1.alpha.,3.beta.,4.alpha.,5.alpha.,6.beta.)-]
177-81-7	Di-(2-ethylhexyl phthalate (DEHP))	14307358	Lithium chromate
84-66-2	Diethyl phthalate	108-31-6	Maleic anhydride
105-67-9	2,4-Dimethylphenol	592041	Mercuric cyanide
131-11-3	Dimethyl phthalate	10045940	Mercuric nitrate
534-52-1	4,6-Dinitro- <i>o</i> -cresol	7783359	Mercuric sulfate
51-28-5	2,4-Dinitrophenol	592858	Mercuric thiocyanate
121-14-2	2,4-Dinitrotoluene	7782867	Mercurous nitrate
606-20-2	2,6-Dinitrotoluene	7439-97-6	Mercury
117-84-0	<i>n</i> -Dioctyl phthalate	72-43-5	Methoxychlor [Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-methoxy)-]
122-66-7	1,2-Diphenylhydrazine (Hydrazobenzene)	80-62-6	Methyl methacrylate
106-89-8	Epichlorohydrin	91-20-3	Naphthalene
100-41-4	Ethylbenzene	7440-02-0	Nickel
106934	Ethylene dibromide	15699180	Nickel ammonium sulfate
50-00-0	Formaldehyde	37211055	Nickel chloride
76-44-8	Heptachlor [1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene]	7718549	" "
118-74-1	Hexachlorobenzene	12054487	Nickel hydroxide
87-68-3	Hexachloro-1,3-butadiene	14216752	Nickel nitrate
		7786814	Nickel sulfate
		7697-37-2	Nitric acid
		98-95-3	Nitrobenzene
		88-75-5	2-Nitrophenol
		100-02-7	4-Nitrophenol
		62-75-9	<i>N</i> -Nitrosodimethylamine
		86-30-6	<i>N</i> -Nitrosodiphenylamine
		621-64-7	<i>N</i> -Nitrosodi- <i>n</i> -propylamine

56-38-2	Parathion [Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester]	108-05-4	Vinyl acetate
87-86-5	Pentachlorophenol (PCP)	75-01-4	Vinyl chloride
108-95-2	Phenol	75-35-4	Vinylidene chloride
75-44-5	Phosgene	108-38-3	<i>m</i> -Xylene
7664-38-2	Phosphoric acid	95-47-6	<i>o</i> -Xylene
7723-14-0	Phosphorus (yellow or white)	106-42-3	<i>p</i> -Xylene
1336-36-3	Polychlorinated biphenyls (PCBs)	1330-20-7	Xylene (mixed isomers)
7784410	Potassium arsenate	7440-66-6	Zinc (fume or dust)
10124502	Potassium arsenite	557346	Zinc acetate
7778509	Potassium bichromate	14639975	Zinc ammonium chloride
7789006	Potassium chromate	14639986	" " "
151508	Potassium cyanide	52628258	" " "
75-56-9	Propylene oxide	1332076	Zinc borate
91-22-5	Quinoline	7699458	Zinc bromide
7782-49-2	Selenium	3486359	Zinc carbonate
7446084	Selenium oxide	7646857	Zinc chloride
7440-22-4	Silver	557211	Zinc cyanide
7761888	Silver nitrate	7783495	Zinc fluoride
7631892	Sodium arsenate	557415	Zinc formate
7784465	Sodium arsenite	7779864	Zinc hydrosulfite
10588019	Sodium bichromate	7779886	Zinc nitrate
7775113	Sodium chromate	127822	Zinc phenolsulfonate
143339	Sodium cyanide	1314847	Zinc phosphide
10102188	Sodium selenite	16871719	Zinc silicofluoride
7782823	" "	7733020	Zinc sulfate
7789062	Strontium chromate		
100-42-5	Styrene		
7664-93-9	Sulfuric acid		
79-34-5	1,1,2,2-Tetrachloroethane		
127-18-4	Tetrachloroethylene (Perchloroethylene)		
935-95-5	2,3,5,6-Tetrachlorophenol		
78002	Tetraethyl lead		
7440-28-0	Thallium		
10031591	Thallium sulfate		
108-88-3	Toluene		
8001-35-2	Toxaphene		
52-68-6	Trichlorfon [Phosphonic acid, (2,2,2-trichloro-1-hydroxyethyl)-dimethylester]		
120-82-1	1,2,4-Trichlorobenzene		
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)		
79-00-5	1,1,2-Trichloroethane		
79-01-6	Trichloroethylene		
95-95-4	2,4,5-Trichlorophenol		
88-06-2	2,4,6-Trichlorophenol		
7440-62-2	Vanadium (fume or dust)		

ADDENDUM C

Large and Medium Municipal Separate Storm Sewer Systems. *[Editor's Note: To be included when available.]*

APPENDIX C - Notice of Intent and Instructions. *[Editor's Note: The Notice of Intent form is included in Appendix 2 of the Manual.]*

APPENDIX D - Notice of Termination and Instructions. *[Editor's Note: To be included when available.]*

FOOTNOTES

¹ On June 4, 1992, the United States Court of Appeals for the Ninth Circuit remanded the exclusion for manufacturing facilities in category (xi) which do not have materials or activities exposed to storm water to the EPA for further rulemaking. (Natural Resources Defense Council v. EPA, Nos. 90-70671 and 91-70200).

² For the purpose of this permit, the following effluent limitation guidelines address storm water (or a combination of storm water and process water): cement manufacturing (40 CFR 411); feedlots (40 CFR 412); fertilizer manufacturing (40 CFR 418); petroleum refining (40 CFR 419); phosphate manufacturing (40 CFR 422); steam electric (40 CFR 423); coal mining (40 CFR 434); mineral mining and processing (40 CFR 436); ore mining and dressing (40 CFR 440); and asphalt emulsion (40 CFR 443 Subpart A). This permit may authorize storm water discharges associated with industrial activity which are not subject to an effluent limitation guideline even where a different storm water discharge at the facility is subject to an effluent limitation guideline.

³ A copy of the approved NOI form is provided in Appendix C of this notice.

⁴ A copy of the approved NOT form is provided in Appendix D of this notice.

⁵ On June 4, 1992, the United States Court of Appeals for the Ninth Circuit remanded the exclusion for manufacturing facilities in category (xi) which do not have materials or activities exposed to storm water to the EPA for further rulemaking. (Nos. 90-70671 and 91-70200).

[The next page is Appendix 1, Page 701.]

